



# SANDY HOOK HISTORIC STRUCTURES PAINT PLAN

SANDY HOOK  
GATEWAY NATIONAL RECREATION AREA  
NATIONAL PARK SERVICE

FORT HANCOCK, NEW JERSEY

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**INTRODUCTION**

The purpose of this document is to establish a standard exterior paint scheme for Sandy Hook historic buildings. Historically, there were a number of military and government operations located on Sandy Hook at different times. These include Fort Hancock and the Sandy Hook Proving Ground, well as the U.S. Life-Saving Service and U.S. Lighthouse Bureau, both of which were incorporated into the U.S. Coast Guard in 1939. Each of these organizations attempted to standardize paint colors on their buildings. This was done to make them uniform in appearance and to make building maintenance easier. This same reasoning applies to the National Park Service today and establishing a paint scheme that treats groups of buildings in a consistent manner is a goal of this report.

The plan selects paint schemes that were used by the various military operations that functioned on Sandy Hook during their period of highest significance. This creates the condition where groups of buildings are painted reflective of different time periods. For example, Sandy Hook Proving Ground structures are painted representative of 1900-1919, Fort Hancock structures to the 1940s, while Nike facilities will reflect patterns of the 1960s. The alternative approach of painting all structures compatible with the 1974 date when military operations ended on Sandy Hook was also considered. The first approach was selected since it better defined the range of military operations that took place on the Hook. In 1974 all facilities were treated as the single entity of Fort Hancock and painting structures to this period result in the loss of important definition, particularly to Sandy Hook Proving Ground story.

Paint colors and schemes that existed on Sandy Hook buildings between 1874 and 1975 were investigated for this report. These investigations show that the paint schemes and colors used on the military buildings was somewhat limited during the historic period, with only a small number of changes over time. The implementation of these changes however was less definitive and it appears, not surprisingly, that when a change occurred, not all buildings were painted as a single project. As a result variations from building to building, at any given time, were not uncommon. This plan utilizes historic paint shades identified around the park, and establishes patterns of treatment for the various types and functions of military buildings located here. The purpose is to show consistent treatment, yet distinguish one historic military organization from another. The plan does not consider buildings individually, nor replicate specific painting colors or patterns for individual buildings at a given time and date.

This project is being undertaken in preparation for the historic leasing program soon to be in place at Fort Hancock. In May of 1997, a team consisting of Architectural Technician Dave Crotty, Park Ranger (Cultural Resources) Michael Thomas, and Carpenter Jeff Baker was formed to complete this task. The first draft of this report was completed in December 1997. The report was originally issued in August 2000 and then completed with the addition of Appendix IX, X and XI in March 2001.

## RESEARCH AND INVESTIGATIONS

### BACKGROUND AND APPROACH

The Team examined hundreds of photographs in the park museum collection dating from 1890s through the 1940s. The best evidence of an overall existing paint scheme came from the “*Fort Hancock Post Record Book*” (GATE museum catalog #221). The *Record Book* contains a photograph taken between 1938 and 1942 of almost every Fort Hancock building then standing. Other written archival materials were researched but very little was found concerning exterior paint schemes.

The Team also examined, either visually or by paint scrapings, over 150 Sandy Hook buildings. In many cases, painted surfaces were shaved down to expose the hierarchy of colors on individual buildings. Where buildings were covered with later facades, such as asbestos shingles, pieces of siding were removed to expose exterior paint finishes underneath. Similar comparisons were also made from architectural elements stored in the North Maintenance office and the Sandy Hook Museum Storehouse (Building 47). Although no samples were submitted for formal analysis, a comparison was made to Sherwin-Williams color swatches for identification. (Sherwin-Williams was used for these comparisons since it is the primary supplier of paint for the park.)

In 1991 and 1992, a rehabilitation team working under Exhibit Specialist Tom Ballos of the Cultural Resource Center at Lowell, Massachusetts, stabilized numerous structures in Fort Hancock. Initially, they worked on Officers Row Buildings #1 through 18. Paint samples were taken from these structures and sent to the National Park Service’s Northeast Cultural Resources Center where they were analyzed in 1997. Muncell comparison swatches for some of these color samples were subsequently sent to Sandy Hook. (See Appendix III)

It was decided early in the process that attachments or appendages to buildings, such as clothesline poles, trashcan holders, utility boxes, conduit and other utility fixtures would not be “scrape” tested to determine their original colors. A decision was made that, for ease of maintenance and uniformity, these appendages would be painted in colors to match the buildings to which they are attached. In the case of metal appendages, metal paint formulas would be chosen for preservation.

## FORT HANCOCK PERMANENT STRUCTURES

The archival materials, photographic records and scrape tests all indicate a uniformity of color throughout the history of Fort Hancock. The pallet of colors ranged from white to a dark blue-green. When the first thirty-six structures of Fort Hancock were completed in 1899, they all appeared to have been painted a light color, probably a white or a light buff (see Appendix III). It is certain that the buildings in the Fort Hancock garrison were “buff” colored by 1904 (see Appendix IX: HSR: Fort Hancock, 1895-1948, by Ed Bearss, page 258)

A review of later years showed an attempt on the Army's part to standardize color schemes according to the purpose of the particular buildings; i.e. light trim for support structures, a mixed color trim for brick quarters and a mixture of buff and/or white for older clapboard quarters. While this seems to have been the objective, in reality, it was achieved perhaps 70% of the time, with odd paint colors popping up in every category of structure.

## SANDY HOOK PROVING GROUND STRUCTURES

The Proving Ground complex has a complete range of buildings, including an Officers Quarters (Bldg. 114), an Enlisted Barracks (Bldg. 102), two NCO Quarters (Bldg. 104 & 108), and a number of maintenance shops and warehouses, all constructed between 1894 and 1909. In 1919, all these buildings were transferred from the United States Ordnance Department who operated the Proving Ground, to the Coast Artillery of the Fort Hancock garrison. Subsequently, for the better part of their existence (over 50 years) they were part of Fort Hancock.

### The Ordnance Proving Ground Shops:

Of all the Fort Hancock structures, the only ones that seem to have been painted a dark hue during their entire existence are the Proving Ground “Shops” (Buildings 124 through 133). Existing paint layers on them range from a dark gray (at the earliest layers), to a dark blue-green and then to the newest layers of brighter green used by the National Park Service. The dark blue-green is similar to the color used throughout Fort Hancock.

### The Enlisted Men's Barrack, Building 102:

The layering of paint on this structure is very thick. Scrape tests are consistently as follows from the oldest to newest layer, with equivalent modern match: blue-green (SW-*Neptune Blue*), creamy white (SW-*Restful White*), brilliant white (Benjamin Moore *001*), creamy white (SW-*Restful White*), buff (SW-*Cottage Cream*) and brilliant white (Benjamin Moore *001*).

### The Non-Commissioned Officers' Quarters, Buildings 104 & 108:

These structures were constructed in 1894 and 1905 respectively and both have been re-sided with asbestos shingles. The team removed pieces of these shingles to expose the clapboard still intact underneath. The clapboard is painted a creamy white over a buff colored paint. Scrape tests show the latest trim color to have been dark green over the following descending colors: blue-green, buff and finally the earliest color being a blue-green or dark gray. As is typical of paint colors throughout Fort Hancock the historic colors match the following Sherwin-Williams colors: creamy white (SW-*Restful White*), buff (SW-*Cottage Cream*), blue-green (SW-*Neptune Blue*). The dark green is the color used by the National Park Service for years and the gray has not been matched to a modern equivalent.

### The Officers' Club complex:

After the Proving Ground closed in 1919, the Proving Ground Officers Quarters was converted to the Fort Hancock Officers' Club (Bldg. 114). In May 1937, records indicate that the Civilian Conservation Corps did a complete landscaping of the building. Photographs in the park museum collection (catalogue #7050 & 7317) appear to have been taken when that project was completed. The wooden elements of the Officers' Club are all a light colored hue at that time with the red brick being unpainted, probably natural. In April of 1937, the structure sustained a fire that damaged the roof and its interior. Post records indicate that in FY1938 repairs in the amount of \$18,301.58 were done to the building. These same post records contain a photograph taken of the Officers' Club. The plantings around the club are slightly taller indicating this photograph was taken shortly after the first and it is believed to have been taken c.1938. By this time, all the trim on the structure is a dark hue except the pillars and balustrade that are light colored. Most importantly, the brick facade of the structure appears to have been painted a light color. This new appearance matches the c.1938 look of the Officers' Row houses of Fort Hancock.

It should be noted that oral history interviews with former employees of the US Army and military personnel at the Fort during the early 1960s indicate that the paint on the brick facade of the Officers' Club must have been removed by that time and the brick was not painted. The exterior brick was again painted sometime after that.

Scrape testing done on Building 114 of trim, windows, pillars and balustrades indicate the earliest color on the structure was a buff closely resembling Sherwin Williams *Cottage Cream*. Later dark blue-green and creamy white layers support the theory that the structure was painted like the Fort Hancock Officers' Row Buildings. These colors closely match Sherwin-Williams *Neptune Blue* and *Restful White*. The latest layers were all dark blue-green or green, the previous closely matching *Neptune Blue* and the more recent green, that used by the National Park Service.

The 1905 Caddy Shack/Laundry (Bldg. 113) is a clapboard structure. The structure's current exterior is blue-green corner boards and trim with buff colored walls. Scrape tests of these elements indicate that the trim below the blue-green was white then buff (earliest color) and the clapboard is buff on a creamy white. The blue-green is a close match for Sherwin-Williams color *Neptune Blue* while the buff colored clapboard walls are a close match to Sherwin-Williams colors *Cottage Cream* and *Restful White*.

Mention should also be made of the small structure that held trashcans, located west of Building 114. The earliest coat of paint on this structure is a creamy white covered by a brilliant white. The door opening trim has been painted a blue-green but the poor paint job indicates it may have been done as an afterthought. The blue-green is a close match for Sherwin-Williams color *Neptune Blue* while the Brilliant white matches Benjamin Moore *001*. The earliest creamy white coat is a close match to Sherwin-Williams color *Restful White*.

## MARITIME STRUCTURES

This category includes the Sandy Hook Lighthouse, Keepers Quarters and barn, along with the Spermaceti Cove Life-Saving Station. Paint scrapings were done on all these structures. There was evidence of an off-white shade on all four buildings in this category, but all buildings also included a brilliant white, in some cases, many coats. Trim was most often painted a brilliant white on these structures however a dark blue-green, and dark grays were also used as trim colors.

The Team also contacted George Perrot Historic Preservation Specialist at Cape Hatteras National Seashore. According to Mr. Perrot, paint scrapings from similar buildings at Cape Hatteras had been taken and analyzed by the NPS Northeast Region, Cultural Resources Center. The findings were similar to those at Sandy Hook. Based on CRC recommendations, Cape Hatteras maritime structures are painted a Benjamin Moore color *Brilliant White 01*. Mr. Perrot added that the Benjamin Moore colors are excellent and hold up very well.

## WORLD WAR II ERA TEMPORARY BUILDINGS

Although there were numerous temporary structures built on Sandy Hook in 1940, many more appeared after the outbreak of World War II in December of 1941 and this building boom continued through 1942. Historic photos indicate that these structures were painted a light color, and the one existing color photo of WWII temporary structures shows them to be white. Scrapings of paint layers on Fort Hancock's two remaining WWII temporary barracks (Buildings 119 and 120) show that the early layers were a creamy white with a slight yellow hue, probably due to linseed oil in the paint. Later layers show a brighter, more brilliant white color.

## NIKE MISSILE FACILITIES

The Nike Missile Launch Site and the Nike Integrated Fire Control Area (Radar Site) contains thirty-eight structures constructed between 1955 and 1962. An analysis of these structures has not been done and these structures will be addressed at a later time.

## GUN BATTERIES & ATTACHED STRUCTURES

Ten concrete gun batteries, all now identified as LCS structures, were built on Sandy Hook between 1890 and 1919. Most remained in use through the conclusion of World War II, although nearly all were modified by that time to adapt to the changing technologies of war.

Originally, the concrete exteriors of the gun batteries and their detached fire control and battery commander stations were unpainted. However based on Sandy Hook historic photographs, we know that many were painted non-glare black during the first years of World War II. Evidence of this paint is still intact in many places. At some time, probably late World War II, the exteriors of these batteries were painted in a mottled pattern using a light olive drab and a brighter green paint hue. These hues are still apparent on many of the gun batteries over the earlier black paint.

Exterior metal elements, such as conduits, ladders, bolts, implement racks, covers and masts, appear to have been natural zinc coated or painted black. In many cases, railings and other metal still retain their zinc coating. Many railings, doors and bars also still have remnants of black paint on them. Much of the metal in and on the batteries is severely rusted.

Wooden doors, both interior and exterior, seem to have been painted a rust colored primer coat, followed by a blue-green color common to other Fort Hancock buildings. The wooden doors of Battery Granger have an additional later coat of paint that closely resembles a World War II olive drab color. It is unclear when these were painted however since the blue-green color seems to have first appeared in Fort Hancock in the 1930s, that time period would be suggested. It is possible that the olive drab (OD) color was applied when the battery was painted camouflage in the late war period. There is no other color beneath these coats, so it is likely that the doors were left natural for many years before being painted.

The treatment of other wooden elements on gun batteries and attached structures varied greatly.

Wooden window elements on the Nine-Gun Battery and Battery Granger Battery Commander Stations were painted first a creamy white (probably in the early war period) then later painted black.

At Battery Potter's outbuildings, the treatment is different. Paint scrapings of wooden elements on the two red brick buildings, the Central Power Plant (Building 259) and the Coal Shed (Building 260), show a color similar to the blue-green Fort Hancock shades. The two gray concrete switchboard room buildings (Buildings 256 and 257) were most recently painted a dark charcoal gray. The layers underneath this gray indicate a creamy white color. The *Fort Hancock Post Record Book* (c. 1938-42), shows the windows and shutters for these four buildings all to have been painted a light color, possibly the creamy white that is the oldest paint layer on their structural elements.

The interiors of the gun batteries were also reviewed as part of these investigations and in many cases, the interior concrete walls and ceilings on Sandy Hook gun batteries were painted. Evidence of the paint is still visible today although not all areas were painted. The decision seems to have been made based on the use of the space. Corridors and workspaces that were frequently used were painted more often than equipment, storage or mechanical rooms. In painted areas, ceilings and walls were a brilliant white, with the bottom three to five feet of the walls often being painted black to make them somewhat scuff resistant. This bright white color allowed for the maximum reflection of light in the darker tunnels and rooms.

## MISCELLANEOUS

This category includes four structures that do not fit well into other categories. An analysis of these structures has not been done and these structures will be addressed at a later time.

## GUIDELINES & TREATMENTS

### GUIDELINES:

1. The plan will create a paint treatment to reflect the goal of uniformity sought by the military throughout their years on Sandy Hook. Maintaining this consistency, and the visual order it creates, is more important than replicating any specific paint pattern on any individual building.
2. The paint scheme will maintain a distinction among the four military entities that occupied buildings at Sandy Hook. These are Fort Hancock, the Sandy Hook Proving Ground, the Nike Missile facilities and the US Coast Guard (and its historic predecessors).
3. Fort Hancock permanent structures will be painted in a scheme reflective of the 1930s and pre-World War II era. There are two reasons for this: (1) By this time, all significant permanent Fort Hancock buildings had been built, and (2) our best documentation for a painting scheme is from this period.
4. The Fort Hancock paint scheme will maintain a distinction between residential and support buildings that existed in the 1930s.
5. Appendages on or near buildings such as utility boxes, clothesline poles, etc will be painted in standard colors sympathetic to those chosen for the individual building
6. Sandy Hook Proving Ground buildings will be painted as they were during the operation of the Proving Ground. Maintenance and support buildings would be dark blue-green, and residential buildings would be creamy white.
7. The Cape Hatteras paint standards for their Maritime structures will be adopted and all building in this category painted Benjamin Moore *Brilliant White 01*.
8. World War II temporary buildings will be painted to reflect their early period when they were a cream, rather than a bright white.
9. Concrete gun batteries and support buildings will be painted to represent the early 1941-42 WW-II era when many were flat black with white interiors. Metal elements should be painted in Sherwin-Williams *Tricorn Black* (SW-A100-7152), black metal paint.
10. A paint scheme for the Nike Missile facilities and other miscellaneous structures is not included in this report and is still needed.

## TREATMENTS:

Buildings in the Park can generally be grouped into various types, each type having basic similarities. These similarities dictate how the building is painted and how the grounds are treated. Listed below are general guidelines concerning the buildings of Sandy Hook.

**1. Downspouts:** All buildings in the Fort Hancock area should have copper downspouts. If the copper downspouts have been painted, they will be stripped back to their copper appearance. There are a few cases where this cannot be immediately done. In those rare cases, downspouts will be painted *Patina* until they can be replaced by copper.

**2. Gutters:** There are four basic gutter configurations on Sandy Hook:

\* Wooden: Any existing wooden gutters will be retained (repaired/replaced) in kind. They will be painted identical to the soffits and other trim on the structure.

\* Copper: Copper gutters will be replaced in kind. Copper gutters that are painted, will be stripped back to their original appearance

\* Metal gutters other than copper: On rare occasions these gutters may need maintenance other than replacement. On these occasions, they will be painted *Patina Top-Coat* until they can be replaced with copper.

\* Metal gutters that mimic their original wooden counterpart: These gutters look like the original rakes and returns at the eve of the building. They can be replaced in their original wooden pattern or in metal to mimic their original appearance. The exterior of these “mimic” gutters will be painted the same as all other exterior trim on the building.

**3. Roof vents, porch roof flashing:** Treatment of these elements depends on the paint scheme for the building:

\* On Neptune Blue Buildings: Roof vents, flashing and porch roofs will be painted *Neptune Blue*.

\* On White and all other Buildings: Roof vents, flashing and porch roofs will be painted Sherwin-Williams *Gray Bridge (SW-2132)*.

NOTE: In all cases copper will be left unpainted. Roof vents that are bright tin or a metal that is coated with a preservative do not need to be painted until the preservative coating deteriorates and then they will be painted Sherwin-Williams *Gray Bridge (SW-2132)*.

**4. Standing seam tin porch roofs:** These roofs will be painted with specially mixed *Top-Coat* which will be *Gray Bridge (SW-2132)* for white buildings and *Neptune Blue (SW-2399)* for buildings of that color. If new roofs are bright tin or metal with coating of a preservative, they do not need to be painted until the preservative deteriorates and additional preservation is needed.

**5. Side vents and metal attachments:** Treatment of these elements depends on the paint scheme for the building:

\* On Neptune Blue Buildings: Metal attachments, side vents etc. on exterior walls of *Neptune Blue* buildings will be *Neptune Blue*. This also includes metal railings and exterior trashcan holders.

\* On White and all other Buildings: Most metal attachments, side vents etc., on the exterior walls of white buildings will be white. Metal railings/fire escapes and exterior trashcan holders will be *gloss black (Tricorn Black (SW-A100-7152) metal paint)*. Window bars will be the same color as window trim.

**6. Mud rooms & building enclosed porch attachments:** Treatment of these elements depends on the paint scheme for the building:

\* On Neptune Blue Buildings: Mud room walls, and enclosed porches, will be *Cottage Cream* with corner-board, door and window trim of *Neptune Blue*.

\* On Cottage Crème Buildings: Mud room walls, and enclosed porches, will be *Cottage Cream* with corner-board, door and window trim of *Restful White*.

\* On Brilliant White Buildings: Mud room walls, and enclosed porches, will be *Brilliant White 01* with corner-board, door and window trim of the same color.

**7. Masonry structures with exterior walls painted:** Masonry (brick, cinderblock and concrete) structures in this category will have the walls painted *Cottage Cream* and all other trim painted *Restful White*. Additional metal features in the lawn area adjacent to the structure will be *gloss black (Tricorn Black (SW-A100-7152))*.

**8. Bilco Doors:** There are both wooden and metal basement Bilco doors on Sandy Hook structures:

\* On Neptune Blue Buildings: All Bilco doors should be painted *Neptune Blue*.

\* On White and all other Buildings: Metal Bilco doors should be painted *Gloss Black, Tricorn Black (SW-A100-7152)*. Wooden doors should be painted the same color “white” (*Restful White* or *Brilliant White 01*) as the rest of the structure.

**9. Wooden Railings:** Treatment of these elements depend on the paint scheme for the building:

\* On Neptune Blue Buildings: Upper and lower wooden railing painted *Neptune Blue* and balustrades painted *Restful White*.

\* On White and all other Buildings: Wooden railings should be a matching white to the structure.

**10. Metal Railings:** Treatment of metal railings depends on the condition of the rail and the paint scheme of the building. Unpainted metal railings that retain a galvanized or aluminum finish will remain as such until the finish deteriorates. At that point the railing is painted as other metal railings according to the specifications that follow:

\* On Neptune Blue Buildings: Metal railings are painted *Neptune Blue*.

\* On White and all other Buildings: Metal railings are painted *Gloss Black, Tricorn Black (SW-A100-7152)*.

**11. Fire Hydrants:** There are no identified existing examples of the 1938-42 era fire hydrants at Fort Hancock. Fire Chief Dennis Soyka worked in fire management for the US Army when the Fort was transferred to the National Park Service in 1975. He stated that the hydrants were yellow at that time. Photos depicting the hydrants during the 1938-42 era show them to be a light hue. It is therefore surmised that they were not red, but more likely yellow as they were in 1975. Accordingly, the fire hydrants of the fort will be painted an appropriate yellow color. Due to current code requirements, the tops and nozzle caps of existing hydrants will be painted as code specifies: black for non-working, light blue for Class AA, green for Class A, orange for Class B and red for class C. (See APPENDIX VI for actual codes and colors.

## BIBLIOGRAPHY

----- *Sherwin-Williams. Exterior Coloranswers.* November 1995.

*Book of all Sherwin-Williams color swatches from which existing paint tones on Sandy Hook structures were matched to determine a modern equivalent.*

Ballos, Thomas. *Completion Report: Emergency Stabilization of Fort Hancock Structures.* National Park Service, Northeast Region Cultural Resource Center, Building Conservation Branch, Gateway National Recreation Area, Sandy Hook Unit, 1991.

*This document contains the paint research table in Appendix III that displays the hierarchy of colors found on seven Fort Hancock structures.*

Bearss, Edwin C. *Historic Resource Study: Fort Hancock 1895-1948: Gateway National Recreation Area, New York/New Jersey.* Denver, CO, May 1981.

Bearss, Edwin C. *Historic Resource Study: Fort Hancock 1948-1974: Gateway National Recreation Area, New York/New Jersey.* Denver, CO, November, 1982

Bearss, Edwin C. *Historic Resource Study: Sandy Hook Proving Ground 1874-1919: Gateway National Recreation Area, New York/New Jersey.* Denver, CO, September 1983.

*The first two of the three Bearss volumes list references taken from the Fort Hancock HSR that specifically describe paint colors or activities relating to the same.*

Foulds, H. Eliot. *Historic Landscape Assessment for Fort Hancock.* Olmsted Center for Landscape Preservation, Boston, MA: revised October 1997.

*This reference was reviewed for information on Fort Hancock paint schemes and to review the historic photographs published within.*

National Fire Protection Association. *National Fire Codes: NFPA 291-8, Fire Flow Testing and Marking Of Hydrants.* 1988.

*The standards for modern fire code markings for fire hydrants are in Chapter 2 of this volume, entitled "Marking of Hydrants".*

U.S. Army. *Fort Hancock Post Record Book*. Fort Hancock, NJ: Compiled between 1938 and 1942.  
*The Fort Hancock Post Record Book contains descriptions of every Fort Hancock structure at that time, and a contemporary photograph of almost every structure. The Record Book is in the park Museum Collection (Catalogue Number GATE-221.) A survey of the Post Record Book shows the approximate "shade" (not color) of the building and, in some cases, descriptions of structural additions and painting that give information on possible color schemes on some structures.*

Telephone Conversation between Park Ranger (Cultural Resources) Michael Thomas of Sandy Hook and Historic Preservation Specialist George Perrot of Cape Hatteras National Seashore. February 2, 1999.  
*Conversation regarding painting and preservation of maritime cultural resources at Cape Hatteras.*

Williams, Norma E. *Cultural Landscape Report For Proving Ground and Wartime Expansion Areas*. Olmsted Center for Landscape Preservation, Boston, MA: July 1999.  
*This reference provided historic photographs of SH-114 and included references of oral history interviews concerning the painting of the brick façade of that structure.*

## APPENDIX I: PAINT SCHEMES AS SHOWN IN PHOTOGRAPHS IN *POST RECORD BOOK*

The following are notations made by the author while observing the tones and shades in the photographs in the Fort Hancock Post Record Book. The Record Book was created around 1938 as a compilation of earlier building maintenance records. It was maintained through the end of World War II. All photographs were taken between 1939 and 1942. This book was made by the US Army to record repairs and maintenance activities relating to the structures of Fort Hancock. This reference includes photographs of most buildings, basic descriptions of their size, construction and utilities, and written records of repairs, painting, and installation of various fixtures and appliances. Since all photographs in the Record Book are black and white, it is not possible to determine specific colors and the terms ‘light’ and ‘dark’ used below reflect their shading. The term fiscal year (FY) identifications below are as they appear in the Record Book. The following is a selection of buildings listed in the Record Book, all of which are still extant.

BUILDING NUMBER	BUILDING NAME	CONSTRUCTION DATE
SH-001	Lieutenants Quarters	1898
c.1938. All soffets and windows are painted dark. A dark painted storm window appears to be in place on some windows. Pillars and porch balustrades painted light. The bottom and top rails on the porch painted dark.		
SH-002	Lieutenants Quarters	1898
c.1938. All woodwork trim are painted light. Front of front porch steps painted light. Storm windows in place on some windows. Down spouts are light.		
SH-003	Lieutenants Quarters	1898
c.1938. All soffets and windows are painted dark. Pillars and porch balustrades painted light. Porch bottom and top rails are painted dark. Dark painted storm windows appear to be on some windows. Down spouts are dark.		
SH-004	Lieutenants Quarters	1898
c.1938. All soffets and windows are painted dark. Pillars and porch balustrades painted light. Porch bottom and top rails are painted dark. Down spouts are dark.		

BUILDING NUMBER	BUILDING NAME	CONSTRUCTION DATE
SH-005	Lieutenants Quarters	1899
c.1938. All soffets and windows are painted dark. Pillars and porch balustrades painted light. Porch bottom and top rails are painted dark. Exterior of building painted FY-1938. Storm windows painted dark appear to be in place. Down spouts are dark.		
SH-006	Lieutenants Quarters	1899
c.1938. All soffets and windows are painted dark. Pillars and porch balustrades painted light. Porch bottom and top rails are painted dark. Exterior of building painted FY-1938. In FY-1940 garage addition added. Dark painted storm windows appear to be in place. Down spouts are dark.		
SH-007	Lieutenants Quarters	1899
c.1938. All soffets and windows are painted dark. Pillars and porch balustrades painted light. Porch bottom and top rails are painted dark. Risers on front porch steps are dark. Exterior of building painted in FY-38. In FY-40, garage addition added. Dark painted storm windows appear to be in place. Down spouts are dark.		
SH-008	Lieutenants Quarters	1899
c.1938. All soffets and windows are painted dark. Pillars and porch balustrades painted light. Porch bottom and top rails are painted dark. Risers on front porch steps are dark. Exterior of building painted FY-38. In FY-40, garage addition added. Dark painted storm windows appear to be in place. Down spouts are dark.		
SH-009	Captains Quarters	1899
c.1938. All soffets and windows are painted dark. Pillars and porch balustrades painted light. Porch bottom and top rails are painted dark. Risers on front porch steps are painted dark. Exterior of building painted FY-30. FY-40, garage addition added. Dark painted storm windows appear to be in place. Down spouts are dark.		
SH-010	Captains Quarters	1899
c.1938. All soffets and windows are painted dark. Pillars and porch balustrades painted light. Porch bottom and top rails are painted dark. Risers on front porch steps are painted dark. Exterior of building painted FY-38. FY-40, garage addition added. Dark painted storm windows appear to be in place. Down spouts are dark.		

BUILDING NUMBER	BUILDING NAME	CONSTRUCTION DATE
SH-011	Captains Quarters	1899
c.1938. All soffets and windows are painted dark. Pillars and porch balustrades painted light. Porch bottom and top rails are painted dark. Risers on front porch steps are painted dark. Exterior of building painted FY-38. Rear porch enclosed FY-38, porch wall painted light with dark trim (interior window mullions are painted light). FY-40, garage addition added. Dark painted storm windows appear to be in place on some windows. Down spouts are dark.		
SH-012	Commanding Officers Qrts.	1899
c.1938. All soffets and windows are painted dark. Pillars and porch balustrades painted light. Porch bottom and top rails are painted dark. Risers on front porch steps are painted dark. Exterior of building painted FY-38. FY-40, garage addition added. Dark painted storm windows appear to be in place on some windows. Down spouts are dark.		
SH-013	Captains Quarters	1899
c.1938. All soffets and porch balustrade are painted dark. Pillars painted light. Porch bottom and top rails are painted dark. Risers on front porch steps are painted middle color. Rear porch enclosed FY-38; porch wall and window trim painted light. FY-40, garage addition added. Dark painted storm windows appear to be in place on some windows. Windows on structure appear to be painted light. Down spouts are dark.		
SH-014	Captains Quarters	1899
c.1938. All soffets, windows and porch balustrade appear to be painted dark. Pillars are painted light. Porch bottom and top rails appear to be painted dark. Exterior of building painted FY-38. Risers on front porch steps are painted a middle or light color. Rear porch enclosed FY-38; porch wall and window trim painted light. FY-40, garage addition added. Dark painted storm windows appear to be in place on some windows.		
SH-015	Captains Quarters	1899
c.1938. All soffets, windows and porch balustrade appear to be painted dark. Pillars are painted light. Porch bottom and top rails appear to be painted dark. Exterior of building painted FY-38. Risers on front porch steps are painted a middle or light color. Rear porch enclosed FY-1938; porch wall and window trim painted light. FY-40, garage addition added. Dark painted storm windows appear to be in place on some windows. Down spouts are dark.		

BUILDING NUMBER	BUILDING NAME	CONSTRUCTION DATE
SH-016	Lieutenants Quarters	1899
c.1938. All soffets and windows are painted dark. Front windows painted dark. Pillars painted light. Porch balustrades appear to be painted dark. Exterior of building painted FY-38. Porch bottom and top rails are painted dark. Risers on front porch steps painted light. FY-40 garage addition added. Dark painted storm windows appear to be in place on some windows. Down spouts are dark.		
SH-017	Lieutenants Quarters	1899
c.1938. All soffets are painted light. Dormers painted light. Front windows and front door as well as first row of windows on south side of structure closest to the west, have dark painted storm windows installed. The uncovered windows on the house are painted light. Pillars and porch railings and balustrades are painted light. Risers on front porch steps painted light. Exterior of building painted FY-38. Down spouts are light.		
SH-018	Lieutenants Quarters	1899
Photo torn. All trim appears to be light. Exterior of building painted FY-38. Downspouts are light.		
SH-020	NCO Quarters	1899
All trim on building including basement windows is a light color. Back porch door appears to be darker (middle shade?). Exterior painted in April 1933. Front of porch steps appear to be middle color. Down spouts are dark.		
SH-021	Officers Quarters, Duplex	1939
All trim, windows, etc. painted dark. Down spouts and railings are dark.		
SH-022	Barracks	1899
Trim is all a dark color. Exterior painted 1928.		
SH-023	Barracks	1899
FY-1938 painted exterior. Soffets are dark. Top edge of pillars appears to be a middle shade. Top railings are dark, balustrade is light. Down spouts are light.		

BUILDING NUMBER	BUILDING NAME	CONSTRUCTION DATE
SH-024	Barracks	1898
Soffets are dark, pillars and balustrade may be dark. Down spouts are light.		
SH-025	Barracks	1898
Balustrade is dark, all else appears to be dark.		
SH-026	HQ Building	1899
It is not possible to tell shade of trim. Appears it may all be light.		
SH-027	BOQ	1898
Trim appears to be all light. Down spouts are dark.		
SH-028	Guardhouse/Jail	1899
Trim appears to be light except dark around edge of lattice covers at bottom of porch. Roof ventilators are dark. Riser on stairs of front porch are light. Down spouts and porch railings are dark.		
SH-029	NCO Quarters	1899
Windows appear to be dark. Soffets and other trim appear to be dark. Balustrade is light with dark upper and lower handrails.		
SH-030	NCO Quarters	1898
Windows appear to be dark, may be some light on south wall or have had storm windows removed. Soffets and other trim appear to be dark. Pillars are light with balustrade being light. Hand rails and lower rails are mixed, south-half light, north-half dark. Stairs and downspouts are dark.		
SH-032	QM Office	1898 (1910)
Windows appear to be light. Soffets and air ventilators appear to be dark. Doors and downspouts are dark.		
SH-033	Bakery	1898
Soffets, windows and doors are light. Door and downspouts are dark. Exterior painted FY-38.		

BUILDING NUMBER	BUILDING NAME	CONSTRUCTION DATE
SH-034	Fire Station Office	1899
Door frames and windows all appear to be light. Doors, window bars and soffets are dark. Down spouts are dark.		
SH-035	Chapel	1941
All clapboard and trim is light colored.		
SH-036	Stables	1899
Windows and doors all appear to be dark. Wooden part of dormers appear to be light. Soffets are dark.		
SH-040	YMCA/Gym	1901 (1941)
Not shown.		
SH-041	Post Office	1941
Exterior is clapboard. All trim is a light hue.		
SH-044	QM Latrine	1899
Light doorframe with a dark door. Soffets are dark or medium shaded.		
SH-047	Post Commissary	1900
All trim and downspouts are dark.		
SH-049	Warehouse	1942
Not shown.		
SH-051	Firehouse #1	1905
All trim appears to be dark		
SH-052	NCO Quarters, Duplex	1906
Window trim appears to be white. Building exterior painted in FY-38. Porch and porch stairs are dark or medium shades are soffets.		

BUILDING NUMBER	BUILDING NAME	CONSTRUCTION DATE
SH-053	Post Exchange	1905
All trim appears to be light or medium. Down spouts are light. Exterior painted in FY-39.		
SH-055	Mess Hall	1905
All trim painted dark with light down spouts.		
SH-056	Mess Hall	1905
All trim appears to be dark except the pillars on the porch which appear to be medium. FY-38, painted rear porch		
SH-057	Mess Hall	1905
All trim appears to be dark except the pillars on the porch which appear to be medium. Downspouts are painted light. April 1929, exterior painted. FY-38, rear porch repainted.		
SH-058	Mess Hall	1905
All trim appears to be dark. FY-1938, rear porch painted. Down spouts are dark.		
SH-060	PX Filling Station	1936
Appears to be mostly light trim, except on roof above pumps and soffets on main structure are medium. Down spout is dark.		
SH-064	NCO Quarters	1907
Appears to be mostly dark trim. Front porch pillar, top railings and center uprights on railings are light. Back porch enclosure is light with all dark trim. FY-38 and again in FY-39 all exterior trim painted. Down spouts are dark.		
SH-065	Storehouse	1905
Soffets appear to be dark. All other exterior trim appears light. Office door is dark. Exterior painted FY-38. Down spouts are dark.		
SH-066	NCO Quarters, Duplex	1908
All exterior trim is light. FY-39 exterior trim painted. FY-39, kitchen porch enclosed. Clapboard is a medium shade (may be buff.).		

BUILDING NUMBER	BUILDING NAME	CONSTRUCTION DATE
SH-067	Theater	1933
Most exterior trim appears to be painted light. All doors are dark. Enclosure to entrance marquis is light. Soffets, top of marquis and down spouts appear to be a medium shade.		
SH-070	Post Exchange (Old Gym)	1909
Appears to be all medium trim. Dark storm windows may be installed on two windows. Downspouts are dark, railings are medium. Exterior painted April 1929.		
SH-071	NCO Quarters, Duplex	1909
All exterior trim appears to be medium. FY-38, exterior repainted.		
SH-072	NCO Quarters, Duplex	1909
Exterior trim appears to be mixed light and medium. Down spouts are light including leaders. Tops of steps are dark. Exterior painted FY-38. Paint is in very poor condition, probably taken pre 1938.		
SH-073	NCO Quarters	1909
Soffets and all exterior trim is medium, except steps and porch edging on northernmost unit is dark. Porch flooring and tops of steps are dark. Exterior painted FY-38.		
SH-074	Barracks & Mess	1909
All trim appears to be dark. July 1929, exterior painted.		
SH-075	NCO Quarters	1910
All trim appears to be medium except porch flooring and tops of stairs. Area above front porch appears to be stucco and clapboard on side of structure appears to be a dark to medium color. FY-38, exterior painted. Photo is probably pre 1938.		
SH-076	Firehouse #2	1910
Doors appear to be dark. Soffets are medium, down spouts are dark.		

BUILDING NUMBER	BUILDING NAME	CONSTRUCTION DATE
SH-080	NCO Quarters, Duplex	1911
All trim is dark except porch balustrade and steps which are light. Upper and lower railings on balustrade are also light. FY-38, exterior repainted.		
SH-084	Lighthouse Keepers Quarters	1883
All siding/clapboard is light. Windows are light with corner boards being dark. Soffets appear to be dark. Area below porch flooring appears to be dark. Porch railings top and bottom are dark with crisscross bars being light. Sides of stairs are light, treads are dark.		
SH-085	Lighthouse Keepers Garage	unknown
Not shown.		
SH-102	Barracks & Mess	1909
All light trim, including soffets. Leaders are light. FY-1938, "painted brickwork." Storm windows and window underneath are light.		
SH-104	NCO Quarters	1894
All light colored trim except porch flooring which is dark. Exterior painted 1926. Downspouts, gutters and flashing painted in April 1929.		
SH-108	NCO Quarters	1905
All trim is light colored. Exterior painted 1926. Down spouts are dark.		
SH-113	Laundry/Caddy House	1905
All trim painted light or white, clapboard is painted medium, perhaps a buff. Door is two- tone medium with light panels.		
SH-114	Officers Club	1878 (1943)
All soffets and window trim is painted dark. Porch pillars and balustrade is painted light. Top and bottom porch rails are dark. Exterior brick is painted light. Exterior painted August 1936. Exterior building trim painted FY-37.		

<u>BUILDING NUMBER</u>	<u>BUILDING NAME</u>	<u>CONSTRUCTION DATE</u>
SH-119 Not shown.	Barracks	1941
SH-120 Not shown.	Barracks	1941
SH-125 All trim painted dark.	Motor Shop (Blacksmith)	1907
SH-130 All trim and doors painted dark.	Storehouse	1907
SH-131 All trim painted dark. Down spouts are dark.	Shelter House	1907
SH-132 All trim painted dark.	Paint Shop	1907
SH-144 All trim is dark. Down spouts are dark.	Officers Quarters, Duplex	1939
SH-145 All trim and down spouts are dark.	Officers Quarters, Duplex	1939
SH-156 Not shown.	Warehouse	1942
SH-184 Not shown.	Paint Storehouse	1941

BUILDING NUMBER	BUILDING NAME	CONSTRUCTION DATE
SH-207 Not shown.	Ft. Hancock Radio Station	1915-20
SH-256 Not shown.	Switchboard Room	1907
SH-257 Not shown.	Switchboard Room	1907
SH-259 Not shown.	Central Power Plant	1901
SH-260 Not shown.	Coal Shed	1903
SH-300-307, 310, 314-321		All c. 1940-41, These are support structures for "Tent City", a World War II tent camp located adjacent to Fort Hancock. All structures are natural unpainted concrete. The trim appears to be light in color with removable storm window/screens being painted dark.
SH-324 Not shown.	Emergency Power Plant	1941
SH-326 Soffets painted dark, all other trim, windows, doors and front of steps painted light.	Post Morgue	1905
SH-335 Porch is enclosed clapboard, appears light in color. Red brick exterior is probably painted a light color. Windows are light.	NCO Quarters	1898

BUILDING NUMBER	BUILDING NAME	CONSTRUCTION DATE
SH-336 Not shown.	Garage	1920
SH-338 Windows and doors painted dark, all other trim painted light except the corner-boards on the enclosed porch and the sewer standpipe that are dark. FY-1940, rear porch enclosed and painted.	NCO Quarters, Duplex	1905-10
SH-340 Not shown.	NCO Quarters	1899
SH-436 Not shown.	Spermaceti Cove Life-Saving Station	1894

NOTE: Record #92, page 383 of Post Record Book, concerns construction of seawall along Officers' Row. Building #21 is completed. Completed wooden bulkhead near chapel is dated June 1941. Officers' Row can clearly be seen, all soffets and windows are dark, pillars and front balustrade is light with top and bottom rails apparently being dark.

## **APPENDIX II: 1991 PAINT SAMPLE SURVEY OF OFFICERS' ROW**

This Appendix includes items relate to paint investigations along Officers Row conducted by Thomas Ballos, Exhibit Specialist for the National Park Service's Buildings Conservation Branch. Ballos performed a variety of stabilization activities on a variety of Fort Hancock structures in the early 1990s.

PAINT RESEARCH TABLE FROM THOMAS BALLOS 1991  
 “COMPLETION REPORT, EMERGENCY STABILIZATION OF THE FORT HANCOCK STRUCTURES”

X; Paint Research Table

This data has been taken from Judith Quinn's Paint Analysis: Dark green appears only as the last several finishes on the buildings sampled. Buildings #10, #14, and #21 each exhibit three dark green finishes. Buildings #16 and #58 have two dark green finishes. Buildings #26 and #102 just have one. The latter paint is either a dark bluish green or a bright forest green. Furthermore all the buildings sampled except for #10 and #14 show very layers of paint at all. Either the substrate was replaced or repeatedly and thoroughly stripped until recently. Building #16 has just two dark green finishes. Building #21 has just the three dark green finishes. Building #58 has two cream finishes followed by a gray primer and the two dark green finishes. Building #102 has a thin layer of tan cream paint followed by a thick translucent layer of parging or some other lime based composite (strong reaction to HCL) followed by a single dark green finish. Building #26, Headquarters, sample was not very good because it did not include any substrate. What we did find was a dark red brown paint followed by a gray and later a dark green paint. Buildings #10 and #14 have matching stratigraphies consisting of about twenty layers of paint. Early colors include tan and cream (maybe dirty cream) followed by a series of browns and grays with finish #8 being a notable exception of pale green. Thick applications of tan cream comprise the four finishes before the greens. The dark green paints are relatively new and more than likely were introduced by the NPS. The dark greens found in the most recent layers are very similar in hue. There is only a slight difference between the bluish cast of the dark forest green and the yellow cast of the current forest green. As identified on the chart the last dark green finish includes layers of both green hues. If we match just the first of the latest greens we come up with Muncell color chip [5G 2/4]. It would be easy to come up with a color which averages both hues.

#10, from S Porch Brackets	#14, from W Porch Rails	#16, from W Porch Pilaster	#21, from S Elev Cornice	#58, from W Porch	#102, from N Elev Ext Exit	#26, from N Elev Cornice
Cream	Cream					
Tan and Dirt	Tan and Dirt					
Tan (2)	Tan (2)					
Dark Brown	Dark Brown					
Pinky Brown (2)	Pinky Brown (2)					
Gray Brown and Dirt	Gray Brown and Dirt					
Gray Brown	Gray Brown					
Pale Green and Dirt	Pale Green and Dirt					
Blue Gray	Blue Gray					
Dark Gray	Dark Gray					Dark Red Brown
Dark Red Brown	Dark Red Brown					Gray
Dark Gray	Dark Gray					
Yellow Cream	Yellow Cream			Tan Cream	Tan Crm (thick)	
Tan Cream (thick) and Dirt	Tan Cream (thick) and Dirt		White	Tan Crm (thick)	Transl. Cream, Sand & Mortar	
Tan Cream & Dirt	Tan Cream & Dirt		Light Pale Green			
Dark Forest Green (2)	Dark Forest Green (2)		Dark Forest Green (2)		Dark Forest Green (2)	
White & Primer	White & Primer	White	White and (sandy)	Gray/Primer ?		White
Dark Forest Green and Dirt	Dark Forest Green and Dirt	Forest Green	Forest Green (2)	Dark Forest Green		Dark Forest Green
Forest Green (2)	Forest Green (2)	Forest Green (2)	Forest Green	Forest Green (2)		
Dark Forest Green (2)	Dark Forest Green (2)	Dark Forest Green	Dark Forest Green	Dark Forest Green		

MEMO FROM CHIEF, CULTURAL RESOURCE CENTER, BUILDING CONSERVATION BRANCH, DATED OCTOBER 14, 1997. SUBJECT: COLOR-MATCHING SANDY HOOK PAINT SAMPLES.



IN REPLY REFER TO:

United States Department of the Interior

NATIONAL PARK SERVICE  
Northeast Cultural Resources Center  
Boott Cotton Mills Museum  
400 Foot of John Street  
Lowell, Massachusetts 01852-1195

October 14, 1997

To: Superintendent, GASH  
From: Chief, BCB/CRC  
Subject: Color-matching Sandy Hook Paint Samples

Munsell color samples for four color-matches from two Sandy Hook, Fort Hancock structures (buildings #10 and #14) are being forwarded to Michael Thomas of your staff. The samples relate to a cursory paint study performed by Judy Quinn some time ago. In re-examining the paint samples, it appears that both building #10 and #14 were painted in the same colors each time a painting campaign was initiated; that the initial cream color (Munsell 5Y 9/1) was a primer for the first finish of tan (Munsell 10YR 6/1); and that the second tan finish, labelled "Tan (2)," matches Munsell 7.5YR 6/2. At your request, we also have included a color sample of a dark green color that represents the first of the dark greens used on the structures (Munsell 5G 2/4).

Each of these color samples is labeled on its reverse side. The first finish called "tan" (10YR 6/1) appears more gray than tan. Please be assured that under the microscope the layer does indeed look like a tan color, but that the color match is exact, and that the true color is a tan/gray.

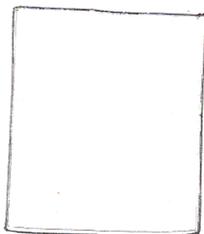
I hope this sufficiently satisfies your request, but if you have any additional questions, please have your staff call Peggy Albee at (978) 970-5131. There will be no charge for this updated information; please contact us at any time for further technical assistance.

for Stephen Spaulding

cc: Peggy Albee  
w/encl. Michael Thomas

MUNSELL COLOR PAINT SWATCHES FROM SAMPLES TAKEN DURING THE EMERGENCY FORT HANCOCK STABILIZATION PROJECT (BALLOS, 1991)

ATTACHMENT  
(Memorandum from: Chief, BCB/CRC, Dated: October 14, 1997)



MUNSELL  
5Y 9/1



MUNSELL  
10YR 6/1



MUNSELL  
7.5YR 6/2



MUNSELL  
5G 2/4

### APPENDIX III: INDIVIDUAL STRUCTURE PAINT STANDARDS

A single-page worksheet will be completed for each building included in this report. The purpose of the sheet is to provide a work guide for painting maintenance on the individual building. The worksheet will identify paint colors for features and elements on the individual building based on the criteria and standards established in this report.

This appendix includes a listing of the possible features and elements that would need to be identified for individual structures, and a completed worksheet for a typical building.

The Individual Structure Paint Standards for each of Sandy Hook's 212 historic buildings and structures are being prepared concurrently with this report. At the present time over 100 are complete. Since they are designed as worksheets rather than as research or support documents they are not being included in the *Sandy Hook Historic Structures Paint Plan* but will be packaged as a separate document.

#### LISTING OF POSSIBLE FEATURES AND ELEMENTS TO IDENTIFY ON INDIVIDUAL STRUCTURES:

##### STRUCTURE, GENERAL:

- \* Walls
- \* Roof Type
- \* Dormers
- \* Dormer windows
- \* Window enclosures
- \* Cornice
- \* Cuppola
- \* Shutters
- \* Storm/Screen Windows
- \* Gutters and Leaders
- \* Doors
- \* Windows
- \* Portico
- \* Trim
- \* Tower Walls
- \* Sills

##### PORCHES (Note: Identify all porches for Direction, i.e. east, west):

- \* Enclosure
- \* Corner Boards
- \* Soffits
- \* Interior Porch Ceiling
- \* Porch Deck
- \* Tread
- \* Risers
- \* Sides
- \* Railing, Upper and lower
- \* Balustrades
- \* Pillars, capital and base
- \* Divider
- \* Facia
- \* Screen/storm panels
- \* Lattice
- \* Loading Dock metal elements

##### OTHER:

- \* Wall vents
- \* Standing vents next to building
- \* Roof vents
- \* Roof flashing
- \* Mudrooms
- \* Bilco doors
- \* Utility Room door
- \* Utility boxes and pipes
- \* Trashcan holders
- \* Tin roofs on porches or garage
- \* Coal chute covers
- \* Metal stairs
- \* Benches
- \* Metal window grates and bars
- \* Clothesline poles
- \* Metal fire escapes

COMPLETED WORKSHEET FOR TYPICAL SANDY HOOK BUILDING:

**INDIVIDUAL STRUCTURE PAINT STANDARD**

**BUILDING NUMBER: SH-001 (FH)    BUILDING NAME: Lieutenant's Quarters**

**STRUCTURE, GENERAL:**            WALLS: yellow brick            DORMERS: *Neptune Blue*

DORMER WINDOW: *Neptune Blue*    GUTTERS & LEADERS: natural (copper) (never paint copper)

DOORS: *Neptune Blue*            WINDOWS: *Neptune Blue*    SILLS: natural concrete

CORNICE: *Neptune Blue*

**PORCH (west):**            INTERIOR PORCH CEILING: *Restful White*            PORCH DECK: *Haze Gray*            CEILING: *Restful White*

TREAD: *Haze Gray*    RISER: *Restful White*            RAILINGS: UPPER & LOWER: *Neptune Blue*            CORNICE: *Neptune Blue*

BALUSTRADE: *Restful White*            PILLARS, CAPITAL & BASE: *Restful White*            LATTICE: *Restful White*

**PORCH (east):**            PORCH DECK: *Haze Gray*            TREAD: *Haze Gray*            RISERS: *Restful White*

RAILINGS & WALL ATTACHMENT: *Neptune Blue*            CEILING: *Restful White*

**OTHER:**            \* Wall & standing vents next to building: *Neptune Blue*            \* Roof flashing: copper, leave natural  
\* Roof vents: *Neptune Blue*    \* Trash can holders: *Neptune Blue*            \* Tin porch roof: *Neptune Blue (Top Coat)*  
\* utility boxes and pipes: *Neptune Blue*            \* Utility room door: *Neptune Blue*

**PAINT COLORS FOR THIS BUILDING: (all are satin unless otherwise stated)**

**Sherwin Williams Colors:** *Restful White*, SW 2449    *Neptune Blue*, SW 2399            *Haze Gray*, (ARMOR SEAL, TREAT-PLEX)

**Top Coat Colors:**    *Neptune Blue* (Top Coat)

## APPENDIX IV: COLORS AND SUPPORT DATA

The park presently most commonly uses Sherwin-Williams paints, therefore, most of original colors on Sandy Hook structures were compared to Sherwin-Williams color charts and chosen accordingly.

### 1. Sherwin-Williams, *Neptune Blue* (SW 2399)

A dark blue-green appears to have been an extremely popular shade from the 1930s until the National Park Service took over Sandy Hook in 1975. (This color compares to Sherwin-Williams *Neptune Blue*, SW 2399). The NPS maintenance division continued the use of this color for many years after. The original “blue-green” shades on many Sandy Hook buildings match closely to the color *Neptune Blue*. An equivalent of this color was also matched by the architectural company Beyer, Blinder and Bell in 1995, and approved to be painted on SH-074 barracks and the new Marine Lab building, by NPS cultural resources management professionals in the North Atlantic Regional Office. Scrapings of paint on the standing tin roofs of Officers’ Row match *Neptune Blue*. For maintenance reasons, it is recommended that these roofs be painted in a custom blended equivalent *Neptune Blue Top-Coat*, which will seal and protect these roofs.

### 2. Sherwin-Williams, *Restful White* (SW 2449)

The white most often found represents a common linseed oil base paint used during the 1930s and 40s. It is also a good match for Munsell color 5Y 9/1 that was professionally identified by the office of the Chief BCB/Cultural Resources Center in 1997, as a color once used on Officers’ Row. An equivalent of this color has been found on Fort Hancock wooden clapboard buildings, and both red and yellow brick buildings. (This color compares to Sherwin-Williams *Restful White*, SW 2449).

### 3. Sherwin-Williams, *Cottage Cream* (SW 2347)

“Buff” color paint was found throughout the Fort Hancock buildings. It is a common military color of the period and was often seen on WW-II temporary structures. Sherwin-Williams *Cottage Cream* (SW 2347) is a good match to the most common “buff” tints although there are darker buff shades on some of the fort’s older buildings.

### 4. Sherwin-Williams, *Haze Gray* (Armor Seal, Treat-plex)

A color that is an equivalent of gray deck paint was found throughout the buildings of the Hook. Gray paint was even used as a trim color on some of the Fort’s oldest buildings and the Sandy Hook Lighthouse Keepers’ Quarters. Usually the older colors are darker. Sherwin-Williams *Haze Gray* (Armor Seal, Treat-plex) is a good match for one of the most common grays and essentially matches the deck gray used by the National Park Service long after the US Army vacated the Fort.

**5. Benjamin Moore, *Brilliant White* (01)**

US Lighthouse Establishment and US Life-Saving Service structures on Sandy Hook appear to have been painted most often a brilliant stark white. These buildings include the Sandy Hook Lighthouse exterior rubble-stone, the Keepers House and barn (Building 84 and 84A), and US Life-Saving Spermaceti Cove Station (Building 436). Paint scrapings done by the team on these structures were mostly of a brilliant white color. Other color schemes were present, but it was decided to paint all structures in this category the same color. Paint scrapings from similar buildings at Cape Hatteras were taken and analyzed by the NPS Northeast Cultural Resources Center and they recommended a Benjamin Moore color *Brilliant White 01* to Cape Hatteras. According to a telephone conversation with George Perrot Historic Preservation Specialist at Cape Hatteras, this color was added to the Cape Hatteras Park paint standard manual. Mr. Perrot stated that the Benjamin Moore colors are excellent and hold up very well.

**6. Sherwin-Williams, *Gray Bridge*, (SW 2132):**

Numerous Sandy Hook buildings are to be painted *Restful White*. Some of these structures have roof vents and standing tin or other types of porch roofs. The painting of these elements *Neptune Blue* as recommended for residences would be out of character. SH-053, the Fort Hancock Post Exchange, has vents that appear to be painted an equivalent color to *Gray Bridge* and it is obvious that they have not been painted for some time. It is therefore recommended that “white” structures have the vents painted Sherwin-Williams color (SW-2132), *Gray Bridge* and that a “top coat” in the same color be ordered for attached porch roofs.

**7. Sherwin-Williams, *Tricorn Black*, (SW-A100-7152) Gloss Black Metal Paint:**

There are numerous buildings throughout Fort Hancock that will be painted primarily white. Examination and scrapings done by the team found the majority of metal fixtures on these white buildings are painted gloss black. *Tricorn Black* (SW-A100-7152) *gloss black* paint was chosen to represent this paint color because it is good quality paint and it contains a metal preservative.

**8. Top-Coat, *Patina*:**

There are rare occasions when some roof flashing, vents, roofs, gutters and leaders that are aluminum or tin and cannot be immediately replaced with copper. In these rare cases, *Patina Top-Coat* is a good match for aged copper architectural elements.

## COLOR CODES:

### COLOR CODES:

Occasionally paint dealers will change a color shade without changing the name of a paint color the new color although being named the same may be a totally different shade than its predecessor. The color chips on this page, match historic colors found on Sandy Hook structures. They are provided here for the purpose of comparison to paints purchased in the future to insure quality control in matching these original colors. All are Sherwin Williams colors unless otherwise specified.



*Neptune Blue (SW 2399)*  
*Top-Coat tinted Neptune Blue (SW 2399)*



*Restful White (SW 2449)*



*Cottage Cream (SW 2347)*



*Tricorn Black (SW A-100-7152)*



*Gray Bridge (SW 2132)*  
*Top-Coat, tinted Gray Bridge (SW 2132)*



*Haze Gray (Armor Seal, Treat-plex)*



Benjamin Moore, *Brilliant White 01*



Top Coat, *Patina*

## APPENDIX V: PAINT COLORS AND STRUCTURE TYPES

The following paint colors are recommended for use in each of these areas of Sandy Hook.

### Fort Hancock Permanent Structures

Sherwin-Williams *Neptune Blue* (SW 2399), dark blue-green, (satin exterior latex)  
Sherwin-Williams *Cottage Cream* (SW 2347), medium “buff”, (satin exterior latex)  
Sherwin-Williams *Restful White* (SW 2449), creamy white, (satin exterior latex)  
Sherwin-Williams *Haze Gray* (Armor Seal, Treat-plex), standard deck gray, (exterior latex)  
Sherwin-Williams *Tricorn Black* (SW-A100-7152), black metal paint, (gloss exterior latex)  
Top-Coat *Gray Bridge* (SW code: 2132), dark gray for metal roofs and vents  
Sherwin Williams *Gray Bridge* (SW 2132), dark gray, (flat exterior latex for painting over existing Top-Coat layers)  
Top-Coat *Patina*, copper patina

### Sandy Hook Proving Ground Structures

Sherwin-Williams *Neptune Blue* (SW 2399), dark blue-green, (satin exterior latex)  
Sherwin-Williams *Cottage Cream* (SW 2347), medium “buff”, (satin exterior latex)  
Sherwin-Williams, *Haze Gray* (Armor Seal, Treat-plex), standard deck gray, (exterior latex)  
Sherwin-Williams *Tricorn Black* (SW-A100-7152), black metal paint, (gloss exterior latex)  
Top-Coat *Gray Bridge* (SW code: 2132), dark gray for metal roofs and vents  
Sherwin Williams *Gray Bridge* (SW 2132), dark gray, (flat exterior latex for painting over existing Top-Coat layers)  
Top-Coat *Patina*, copper patina

### Maritime Structures

Benjamin Moore color *Brilliant White 01*, (satin exterior latex)  
Sherwin-Williams *Haze Gray* (Armor Seal, Treat-plex), standard deck gray, (exterior latex)  
Sherwin-Williams *Tricorn Black* (SW-A100-7152), black metal paint, (gloss exterior latex)  
Sherwin Williams *Gray Bridge* (SW 2132), dark gray, (flat exterior latex for painting over existing Top-Coat layers)  
Top-Coat *Gray Bridge*, (SW code: 2132), dark gray for metal roofs and vents  
Top-Coat *Patina*, copper patina

### World War II Temporary Structures

Sherwin-Williams *Restful White* (SW 2449), creamy white, (satin exterior latex)

Sherwin-Williams *Haze Gray* (Armor Seal, Treat-plex), standard deck gray, (exterior latex)

Sherwin-Williams *Tricorn Black* (SW-A100-7152), black metal paint (gloss exterior latex)

Sherwin Williams *Gray Bridge* (SW 2132), dark gray, (flat exterior latex for painting over existing Top-Coat layers)

Top-Coat *Gray Bridge*, dark gray for metal roofs and vents

### Nike Missile Facilities

To Be Determined

### Gun Batteries and attached structures

Sherwin-Williams *Tricorn Black* (SW-A100-7152), black metal paint, (gloss exterior latex)

Sherwin-Williams *Flat-Tricorn Black* (SW--7152), flat black paint, (flat exterior latex)

Benjamin Moore *Flat-Brilliant White 01*, brilliant white (for interiors, flat exterior latex).

Sherwin-Williams *Restful White* (SW 2449), creamy white, (satin exterior latex)

Top-Coat *Gray Bridge*, dark gray for metal roofs and vents

Sherwin-Williams *Neptune Blue* (SW 2399), dark blue-green, (satin exterior latex)

### Miscellaneous Facilities

To Be Determined

MATRIX OF PAINT COLORS AND STRUCTURE TYPES:

	Fort Hancock Permanent Structures	Sandy Hook Proving Ground	Maritime Structures	WW II Era Temporary Structures	Nike Missile Facilities *	Gun Batteries and Attached Structures	Miscellaneous Facilities *
<i>Neptune Blue</i> Sherwin-Williams 2399	•	•				•	
<i>Cottage Cream</i> Sherwin-Williams 2347	•	•					
<i>Restful White</i> Sherwin-Williams 2449	•			•		•	
<i>Brilliant White</i> <i>Benjamin Moore 01</i>			•			•	
<i>Haze Gray</i> Sherwin-Williams Armor Seal, Treat-plex	•	•	•	•			
<i>Tricorn Black</i> Sherwin-Williams W-A100-7152	•	•	•	•		•	
<i>Gray Bridge</i> Sherwin-Williams 2132	•	•	•	•		•	
<i>Gray Bridge</i> Top-Coat	•	•	•	•		•	
<i>Copper Patina</i> Top-Coat	•	•	•				

\* To be completed at a Later Date

## APPENDIX VI: PAINT STANDARDS FOR FIRE HYDRANTS

Referenced from the National Fire Protection Association's "National Fire Codes NFPA 291-8, Fire Flow Testing & Marking of Hydrants", 1988 Edition. All references from Chapter 2: "Marking of Hydrants"

### Classification of Hydrants:

Hydrants should be classified in accordance with their rated capacities (at 20 psi (1.4 bar) residual pressure or other designated value) as follows:

Class AA - Rated capacity of 1500 gpm or greater (5680 L/min)	Class A - Rated capacity of 1000-1499 gpm (3785-5675 L/min)
Class B - Rated capacity of 500-999 gpm (1900-3780 L/min)	Class C - Rated capacity of less than 500 gpm (1900 L/min)

### Marking of Hydrants:

Public Hydrants. All barrels are to be chrome yellow except in the cases where another has already been adopted. The tops and nozzle caps should be painted with the following capacity-indicating color scheme to provide simplicity and consistency with colors used in signal work for safety, danger, and intermediate condition:

Class AA - Light blue	Class A - Green	Class B - Orange	Class C - Red
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- \* For rapid identification at night, it is recommended that the capacity colors be of a reflective paint.
  - \* Hydrants rated less than 20 psi (1.4 bar) should have the rated pressure stenciled in black on the hydrant top.
  - \* In addition to the painted top and nozzle caps, it may be advantageous to stencil the rated capacity of high volume on the top.
- The classification and markings of hydrants provided in this chapter anticipate determination based on individual flow test. Where a group of hydrants may be used at time of fire, some special markings designating group flow capacity may be desirable."

### Color Specifications:

Colors will be Rust-oleum Brand gloss industrial enamels. The references are from Grainger Industrial Supply Catalogue, 1998, page 1994, Rust-oleum Color Selection Guide "Systems" Listing

Color names and codes as follows:

Safety Yellow (6H383)	Safety Blue (5A268)	Safety Green (6A929)
Safety Orange (6H384)	Safety Red (5A271)	Black (5A264)

## **APPENDIX VII: LIST OF PAINT AND COLOR REFERENCES IN HISTORIC RESOURCE STUDY: FORT HANCOCK, 1895-1948**

Ed Berris' 1981 *Historic Resource Study, Fort Hancock 1895-1948* was consulted to determine if there was mention of specific use of particular paint colors on the buildings of Sandy Hook. Very few references were found to exterior paint schemes. A few were found concerning interior painting and those have been included for interest.

- p. 55 "...window frames and finished lumber were ...primed at the factory." (during original construction 1898-99)
- p. 258 Bldg. 50, frame ordnance storehouse, March 5, 1904 "...painted buff to compliment other post structures"
- p. 296 (brick barracks, 1906) "...paint the ceilings a rich buff; the door panels, dados and interior of the window sash indian tan; the chair rails and baseboards leather; the ceiling & porches French grey; and the exterior trim a matching color that had been used for similar features on other post buildings." "The steel ceilings were [changed] to be a light buff.
- p. 322 (1905) "...Post Commander...to have rooms in his quarters kalsomined and repainted."
- p. 323 In the same memorandum as p.322, all walls were to be wall papered, the doors on the second floor painted and on the third floor, "tint" ceilings and walls, paint woodwork.
- p. 394 (1919) Cantonment buildings: 15 buildings between bldg. #32 and #23 "... were painted ...spring of 1919." "...battleship grey with white trimmings for doors and windows...."
- p. 492 (1925) barracks 22-25 and kitchen/mess halls. Overall painting "...and paint that conformed to U.S. specifications."
- p. 493 Bldg. 58 repainted 1925. "Materials to be used similar to those needed for barracks."

## APPENDIX VIII: LIST OF STRUCTURES INCLUDED IN THIS REPORT BY TYPE

The structures of Sandy Hook have been divided into seven distinct categories. For the most part, the first six categories are grouping by use or assignment. The buildings or structures that do not fit in the first six categories are listed as *Miscellaneous*.

FORT HANCOCK PERMANENT STRUCTURES (Total of 89 structures):

NUMBER	TITLE	CONSTRUCTED	CURRENT BUILDING USE
SH-001	Lieutenants Quarters	1898	History House – open to Public
SH-002	Lieutenants Quarters	1898	
SH-003	Lieutenants Quarters	1898	
SH-004	Lieutenants Quarters	1898	
SH-005	Lieutenants Quarters	1899	
SH-006	Lieutenants Quarters	1899	
SH-007	Lieutenants Quarters	1899	
SH-008	Lieutenants Quarters	1899	
SH-009	Captains Quarters	1899	
SH-010	Captains Quarters	1899	
SH-011	Captains Quarters	1899	
SH-012	Commanding Officers Quarters	1899	
SH-013	Captains Quarters	1899	
SH-014	Captains Quarters	1899	
SH-015	Captains Quarters	1899	
SH-016	Lieutenants Quarters	1899	
SH-017	Lieutenants Quarters	1899	
SH-018	Lieutenants Quarters	1899	American Littoral Society
SH-020	Non Commissioned Officer Quarters	1899	
SH-021	Two Family Officers Quarters	1939	NPS Employee Quarters
SH-022	Barracks	1899	NJ Marine Sciences Consortium
SH-023	Barracks	1899	

SH-024	Barracks	1898	
SH-025	Barracks	1898	Slated as future Park Headquarters/Visitor Center
SH-026	Post Headquarters	1899	
SH-027	Bachelor Officers Quarters	1898	NPS Seasonal Employee Housing
SH-028	Guardhouse	1899	Fort Hancock Museum
SH-029	Non Commissioned Officer Quarters	1899	NPS Employee Quarters
SH-030	Non Commissioned Officer Quarters	1898	NPS Employee Quarters
SH-032	Quartermaster Office	1898 (1910)	NPS Law Enforcement/Resource Management Offices
SH-033	Bakery	1898	
SH-034	Fire Station Office	1899	NPS Fire Operations
SH-036	Stables	1899	
SH-037	Pumphouse/Sewerage Lift	1928	
SH-039	Bus Shelter	c. 1960	
SH-040	YMCA/Gym	1901 (1941)	Sandy Hook Branch - Highlands Post Office
SH-044	Quartermaster Latrine	1899	NPS Fire Operations
SH-045	Detached Magazine Storehouse	1921	
SH-047	Post Commissary	1900	NPS Museum Storehouse
SH-051	Firehouse #1	1905	NPS Fire Operations
SH-052	NCO Quarters, Duplex	1906	NPS Employee Housing
SH-053	Post Exchange	1905	
SH-055	Mess Hall	1905	
SH-056	Mess Hall	1905	
SH-057	Mess Hall	1905	
SH-058	Mess Hall	1905	Slated for future Park VC/Education Use
SH-060	PX Filling Station	1936	
SH-061	Flag Pole	1930	
SH-064	Non Commissioned Officer Quarters	1907	NPS Employee Housing
SH-065	Storehouse	1905	
SH-066	NCO Quarters, Two Family	1908	NPS Employee Housing
SH-067	Post Theater	1933	
SH-W	Post Theater Transformer Building	c. 1933	
SH-070	Post Exchange, (Former Gym)	1909	

SH-071	NCO Quarters, Two Family	1909	NPS Employee Housing
SH-072	NCO Quarters, Two Family	1909	NPS Employee Housing
SH-073	Non Commissioned Officer Quarters	1909	NPS Employee Housing
SH-074	Barracks & Mess	1909	NOAA, Northeast Marine Fisheries Center
SH-075	Non Commissioned Officer Quarters	1910	NPS Employee Housing
SH-076	Firehouse #2	1910	
SH-077	Laundry & Tailor Shop	1910	Marine Academy of Science & Technology (MAST)
SH-079	Oil & Paint Storehouse	1918	NPS Fire Operations
SH-080	NCO Quarters, Two Family	1911	
SH-100	Rodman Gun	1869 (1937)	Public exhibit
SH-110	Bus Shelter	1965	
SH-134	Store House	1941	NPS Maintenance Operations
SH-144	Two Family Officers Quarters	1939	NPS Employee Housing
SH-145	Two Family Officers Quarters	1939	NPS Employee Housing
SH-157	Laundry & Latrine	1967	Public Restrooms
SH-184	Paint Storehouse	1941	NPS Maintenance Operations
SH-206	Pump House	1941	NPS Utility Operations
SH-207	Fort Hancock Radio Station	1915-20	
SH-326	Post Morgue	1905	Public Restrooms
SH-335	Non Commissioned Officer Quarters	1898	Sandy Hook Child Care Center
SH-338	NCO Quarters, Duplex	1905-10	NPS Employee Housing
SH-340	Non Commissioned Officer Quarters	1899	NPS Employee Housing
SH-341	Water Pumping Plant	1912	NPS Utility Operations
SH-342	Lime house	1942	NPS Utility Operations
SH-343	Aerator House	1925	NPS Utility Operations
SH-344	Storehouse	1921	NPS Utility Operations
SH-354	Pump house	1941	NPS Utility Operations
SH-355	Pump house	1959	NPS Utility Operations
SH-356	Pump house	1905	NPS Utility Operations
SH-357	Bus Shelter	1965	
SH-358	Pump house	1970	NPS Utility Operations
SH-401	Pump house/Sewage	1941	NPS Utility Operations

SH-438	Gate Guardhouse	1942	NPS Fee Collection Operations
SH-CC	Water Pumping Plant-Wells	1896-1911	NPS Utility Operations
SH-E	Mileage Markers	unknown	

SANDY HOOK PROVING GROUND STRUCTURES (Total of 18 structures):

NUMBER	TITLE	CONSTRUCTED	NOTES
SH-102	Barracks & Mess	1909	NPS Education Center
SH-104	Non Commissioned Officer Quarters	1894	NPS Administration Offices
SH-108	Locomotive Engineers Quarters	1905	NPS Conference Center/Lodging
SH-113	Laundry/Caddy House	1905	
SH-114	Officers Quarters	1878 (1943)	
SH-124	Power Plant	1907	
SH-124A	Electrical Vault	c. 1938	
SH-125	Motor Shop (Blacksmith)	1907	
SH-130	Storehouse	1907	NPS Maintenance Operations
SH-131	Shelter House	1907	NPS Maintenance Operations
SH-132	Paint Shop	1907	NPS Maintenance Operations
SH-173	Magazine Traverses	1903	Public Exhibit
SH-174	Magazine Traverses	1903	Public Exhibit
SH-174A	Proof Battery	1901	Public Exhibit
SH-U	Gun Rails	c. 1903	Public Exhibit
SH-AA	Officers Quarters-Outbuilding	Unknown	
SH-V	Proving Ground Transformer Shed	c. 1908	
SH-DD	Proving Ground Lighting System	1912-1913	

MARITIME STRUCTURES (Total of 4 structures):

NUMBER	TITLE	CONSTRUCTED	NOTES
SH-Light	Sandy Hook Lighthouse	1764	Open to Public
SH-084	Lighthouse Keepers Quarters	1883	Sandy Hook Foundation
SH-085	Garage/Barn	c. 1883	
SH-436	Spermaceti Cove Life Saving Station	1894	Sandy Hook Visitor Center – open to public

WORLD WAR II TEMPORARY STRUCTURES (Total of 21 structures):

NUMBER	TITLE	CONSTRUCTED	NOTES
SH-035	Chapel	1941	
SH-041	Post Office	1941	NPS Seasonal Employee Housing
SH-049	Warehouse	1942	NPS Warehouse
SH-119	Barracks	1941	
SH-120	Barracks	1941	
SH-156	Warehouse	1942	NPS Maintenance Operations
SH-300	Latrine	1940	
SH-301	Officers Mess	1940	Marine Academy of Science & Technology (MAST)
SH-302	Camp Headquarters Building	1940	Marine Academy of Science & Technology (MAST)
SH-304 (MAST)	Camp Officers Latrine	1940	Marine Academy of Science & Technology
SH-305	Dispensary	1940	Marine Academy of Science & Technology (MAST)
SH-306	Sewage Pumphouse	1940	NPS Utility Operations
SH-307	Sewage Pumphouse	1941	NPS Utility Operations
SH-315	Mess Hall	1940	Marine Academy of Science & Technology (MAST)
SH-316	Camp Post Exchange	1940	Marine Academy of Science & Technology (MAST)
SH-317	Mess Hall	1940	Marine Academy of Science & Technology (MAST)
SH-318	Enlisted Mens Latrine	1940	Marine Academy of Science & Technology (MAST)

SH-319	Enlisted Mens Latrine	1940	Marine Academy of Science & Technology (MAST)
SH-320	Enlisted Mens Latrine	1940	Marine Academy of Science & Technology (MAST)
SH-321	Enlisted Mens Latrine	1940	Marine Academy of Science & Technology (MAST)
SH-324	Emergency Power Plant	1941	Public Restrooms

NIKE MISSILE FACILITIES (Total of 50 structures):

NUMBER	TITLE	CONSTRUCTED	NOTES
SH-402	Enlisted Mens Barrack/Mess	1955	Radar Site
SH-403	Enlisted Mens Barrack/Mess	1955	Radar Site
SH-406	Latrine #1	1955	Radar Site
SH-407	Boiler Room	1955	Radar Site
SH-409	Connecting Corridors	1956	Radar Site
SH-410	Generator House	1962	Radar Site
SH-411	Connecting Corridors	1958	Radar Site
SH-413	Sentry Box	1958	Radar Site
SH-414	Generator House	1961	Radar Site
SH-417	Target Tracking Tower	1956	Radar Site
SH-418	Acquisition Tower	1962	Radar Site
SH-419	Missile Tracking Tower	1962	Radar Site
SH-420	Target Tracking Tower	1956	Radar Site
SH-421	Acquisition Tower	1956	Radar Site
SH-422	Missile Tracking Tower	1956	Radar Site
SH-423	Sentry Box	1958	Radar Site
SH-424	Sentry Box	1958	Radar Site
SH-425	Nike Silo	1955	Launch Site
SH-426	Nike Silo	1955	Launch Site
SH-427	Nike Silo	1955	Launch Site
SH-428	Nike Silo	1955	Launch Site
SH-429	Generator Building	1958	Launch Site – NPS Maintenance Operations

SH-430	Barracks	1955	Launch Site – NPS Maintenance Operations
SH-431	Barracks	1955	Launch Site – NPS Maintenance Operations
SH-432	Barracks	1955	Launch Site – NPS Maintenance Operations
SH-433	Barracks	1955	Launch Site – NPS Maintenance Operations
SH-434	Latrine	1955	Launch Site – NPS Maintenance Operations
SH-435	Boiler House	1955	Launch Site – NPS Maintenance Operations
SH-437	Ready Building	1964	Launch Site – NPS Maintenance Operations
SH-447	Storage Building	1959	Launch Site – NPS Maintenance Operations
SH-448	Sentry Control Station	1958	Launch Site – NPS Maintenance Operations
SH-449	Missile Assembly Building	1959	Launch Site – NPS Maintenance Operations
SH-450	Warhead Building	1959	Launch Site – NPS Maintenance Operations
SH-451	Pedestal	1960	Radar Site
SH-452	Equipment Building	1960	Launch Site – NPS Maintenance Operations
SH-453	Radar Tower Pedestal	1960	Launch Site
SH-454	Equipment Building	1960	Launch Site
SH-455	Tool Shed	1960	Launch Site
SH-456	Guard Shelter	1960	Launch Site
SH-457	Storage Shed	1960	Launch Site
SH-458	Dog Kennels	1958	Launch Site
SH-459	Transformer Shed	c. 1955	Launch Site
SH-460	Transformer Shed	c. 1955	Launch Site
SH-467	Target Ranging Tower	1961	Radar Site
SH-468	HIPAR Building	1962	Radar Site
SH-469	HIPAR Base Foundations	1962	Radar Site
SH-470	Gate Office	1962	Ranger Station
SH-471	Gatehouse	1962	
SH-472	HIPAR Radar Tower	1962	Radar Site
SH-473	HIPAR Radar Tower	1962	Radar Site

GUN BATTERIES AND ATTACHED STRUCTURES (Total of 26 structures):

NUMBER	TITLE	CONSTRUCTED	NOTES
SH-180	Battery Peck	1904	Public Exhibit
SH-Z	Range Finding Station	c. 1904	
SH-181	Nine Gun Battery	1899-1902	Public Exhibit
SH-256	Switchboard Room	1907	
SH-257	Switchboard Room	1907	
SH-258	Conduit Hut "A"	1919	
SH-X	Conduit Hut "E"	1908	
SH-Y	Conduit Hut "B"	1908	
SH-259	Central Power Plant	1901	
SH-260	Coal Shed	1903	
SH-264	Battery Potter	1891-95	Open to Public
SH-266	Battery Granger	1897	Public Exhibit
SH-337	Battery Gunnison	1904	Open to Public
SH-349	Mortar Battery	1891-4	Open to Public
SH-350	Generator House	1904	For searchlight
SH-440	Battery Mills	1919	Public Exhibit
SH-441	Battery Kingman	1919	Open to Public
SH-442	Igloo Magazine	1938	
SH-443	Igloo Magazine	1937	
SH-444	Igloo Magazine	1942-3	
SH-445	Igloo Magazine	1942-3	
SH-539	Battery Morris	1904	Access via USCG
SH-K	CRF Station (Battery Morris)	c. 1904	Access via USCG
SH-540	Battery Urmston	1904	Access via USCG
SH-L	Machine Gun Bunker, east	1942	
SH-M	Machine Gun Bunker, west	1942	

MISCELLANEOUS STRUCTURES (Total of 4 structures):

SH-098	Halyburton Marker	1939	Public Exhibit
SH-N	Nike Hercules Missile Memorial	1974	Public Exhibit - missile c.1957
SH-600	Area Managers House	c. 1930	NPS Staff Housing
No Number	Marine Fisheries Laboratory	1987	NOAA, Northeast Marine Fisheries Center

## **APPENDIX IX: REPORT ON NIKE FACILITY STRUCTURES**

### **INTRODUCTION**

The purpose of this report is to establish a standard exterior paint scheme for the Nike Missile era structures of Sandy Hook, designated as Nike Missile Battery NY-56, Fort Hancock, New Jersey. Like the preceding sections of the Sandy Hook Historic Structures Paint Plan, the National Park Service wishes to establish a paint scheme that treats buildings in a consistent manner.

This report follows the research, analysis and treatment format used in other sections of the Paint Plan. It is being prepared at this time (December 2000) to complete the study begun in the Sandy Hook Paint Plan and because of a renewed interest in the Cold War era.

### **RESEARCH AND INVESTIGATIONS**

#### BACKGROUND AND APPROACH

The Nike Missile Launch Site and the Nike Integrated Fire Control Area (Radar Site) contains fifty structures constructed between 1955 and 1964. No written documentation of the Nike era paint schemes specific to Sandy Hook could be located. One recollection is by Sandy Hook Facility Manager Lou Hansen who recalls the Nike structures being painted primarily tan with dark green trim at the time of the base closure in 1974. Most of the information we have gathered is from field examinations; scraping down through layers of paint and matching them as closely as possible to color charts provided by Sherwin-Williams and Benjamin Moore Companies.

Golden Gate National Recreation Area has done extensive research on their structures, however, producing a history and preservation Guide entitled "*What We Have We Shall Defend*". This study gives detailed archival and physical data of their launch area. A comparison of the report with the field investigations at Sandy Hook reveal similarities in building types and paint schemes. The Golden Gate sentry post, warhead building, and security structures appear identical as well as the use of Army prefabricated, corrugated metal "Butler buildings." In color, Golden Gate's buildings "...evolved from overall light green in the 1959-1963 period to overall light green with medium or dark green trim around 1967...." These colors appear to be represented on all Sandy Hook structures although we have little archival evidence of the exact years of their application.

The Sandy Hook structures depart somewhat in their final color schemes from those at Golden Gate, "...during the last years of operation... buildings were painted medium green with either dark green or light green trim." Field observations at Sandy Hook and

a color photograph (dated 1975) from the NPS museum collection, show the structures at Sandy Hook to have been painted “buff” with a dark green trim in their final years. This information was verified in conversations with Nike Era Historian Donald Bender.

Although there are slight differences in our sites, there are also striking similarities, therefore, the Golden Gate study was heavily relied upon during the decision making process concerning the Sandy Hook structures. Paint schemes in the Sandy Hook launch area and radar site are essentially the same so the sites will be dealt with together. Structures in these sites have been divided into five types: buildings, radar platforms, batteries and security structures such as fences and spotlights/lighting.

Please note that while most paint references below refer to Sherwin-Williams colors, those for metal paint use Benjamin Moore color charts. This is because of their specially formulated metal preservation paints. Identical colors from other companies that produce paints of a better or equal quality and type may be substituted.

## **Buildings**

The buildings within the radar and launch sites are constructed of cinderblock, concrete, corrugated tin or wood frame with what appears to be plywood sides. Scrape tests of buildings in both sites (Radar: SH-409-410, SH-423, SH-452; Launch: SH-437, SH-449-450) show many paint layers of what appears to be latex paint (the paint peels off in rubbery sheets). The base layer (which may be a primer coat) on all of the structures is a stark brilliant white (closely matching *Benjamin Moore, Brilliant White 01*). The middle layers are varying tones of a light patina green or blue. These colors are on the structures in many layers and do not seem to match layer for layer, structure to structure. It appears the Army repainted the structures anytime they needed it individually, but, did not do complete repaints of all the structures in an area at one time. Finally, there are numerous layers of a “buff” colored paint. These buff layers, slightly different in tone, are similar to two colors on the Sherwin-Williams color charts, *Cottage Cream* and *Impressive Ivory 2333*. The only color photograph in the Sandy Hook Museum collection (cat. #6373) was taken in 1975 of the radar site shortly after the base closing. It shows the buildings to all be buff, painted in bright green trim.

The trim on buildings (doors and frames, windows, eaves and vents) appear to have been painted two colors, one a dark green (closely matching *SW-Neptune Blue 2399*) and a brighter green (closely matching *SW Mown Grass 2377*). These greens have both been applied over each other numerous times and seem to not be in layers representing a long use of either color in any particular time period. There are occasional layers of a light “patina” green intermixed on the trim of some structures. This color does not appear on a large number of structures however many of the buildings seem to have been stripped of all color when they were repainted. This may be due to peeling of earlier latex coats. Both green colors appear on various structures at Sandy Hook as the last exterior paint coats.



A search was done of the Fort Monmouth Library and no color Nike era photographs could be found of structures. The Golden Gate Nike study "*What We Have We Shall Defend*" discusses paint schemes. Their paint color research spans the period of 1955 to 1974, which is identical to when our site was in operation. They indicate that the earliest color schemes for walls and trim were light to medium green. Most Sandy Hook structures have a bright, stark white paint as a first coat (it is possible that this first coat of white on the structures is a primer coat) with subsequent exterior coats being light or medium green. This, to all appearances, indicates that the Sandy Hook structures were painted the same as those at Golden Gate.

Further research done at Golden Gate found a Federal Paint Standard Code (#24491) for the "light green" color specified in a building plan to be painted on one of their structures. Professionals at Sherwin-Williams matched this Federal Paint Standard to color called *Peppergrass SW2380*.

Golden Gate made their final color choices for their rehabilitated structures based on the time period of greatest significance, the Cold War "...years 1959-1965." Their decision as to paint colors is as follows: "...it is recommended that a standard paint scheme of overall light green with dark green doors, windows, and eaves be adopted." (page 123)

### **Radar Platforms**

There are six radar platform bases located in the Nike IFC AREA (Integrated Fire Control) or Nike Radar Site. These platforms originally had a large semi-circular golf ball shaped "geodetic" style dome placed atop them. Inside each dome was a radar antenna that had its own individual purpose and function. The domes and antenna are no longer extant. What remain are the steel and concrete bases. They all appear to have been originally painted a stark brilliant white. This is based on field scraping where the base color is stark white. Subsequently, yellow tones were used in areas of safety concern such as the bases of the platform legs and the railings. Whether the bases were painted yellow originally over the white undercoat or were painted as an afterthought is unknown. Another notable characteristic is the painting of all electric boxes and outlets and some conduit a dark blue tone. This also was probably done for safety reasons, to point out clearly where electrical utilities were located.

The basic stark white color of all of the platforms closely matches Benjamin Moore, *Brilliant White 01*. The yellow tint on the platform's railings has faded in every case. The only yellow tints that are strong were painted on the bases of the platform legs. The same color of yellow appears to have been used for the railings and the bases. A sample comparison of this color closely matches Benjamin Moore *Imperial Yellow 314*.

The only other color that shows up on the platforms is the medium to dark blue used on the utilities components attached to the platforms. Many of these components are faded or peeling but, in areas where the color is bright, it best matches Benjamin Moore *Euro Blue 37*.

The Golden Gate Nike study does not deal with their radar site in depth. In addition subsequent searches for color photographs of the Sandy Hook sites has yielded nothing.

### **Batteries**

The launch area on Sandy Hook consists of four Nike silos or magazines each with an adjacent launch area. These were all constructed in 1955. Each consists of a large underground silo, an elevator lift platform, entry hatches, vents, an emergency fire station and the adjacent launch area. The main color used on the concrete and metal of these batteries is yellow. Comparisons show that this yellow closely matches Benjamin Moore *Imperial Yellow 314*. At earlier times, some of these elements, such as the elevators may have been painted red, but, the surface are so deteriorated that none adheres to the metal, only flakes are apparent in the mix of rust and debris. Like the Nike Radar Site, color coding for electrical utilities is dark blue, closely matching Benjamin Moore *Euro Blue 37*. Located beside each silo is a set of water pipes, spigot and hose holder probably to be used for fire suppression. These are all painted a deep red closely matching Benjamin Moore *Carnival Red 23*.

Along side each silo is a launch area where missiles were raised up from the silo and rolled off the elevator into positions side by side. These bases basically consist of a flat and angled metal plate and some metal fasteners whose purpose is unknown. The bases are painted silver with what appears to be sand added to the paint. The unknown fittings are painted olive drab. An excellent match for the silver is Benjamin Moore, *Aluminum 164 78*, a paint especially formulated for metal. The olive drab closely matches a Sherwin-Williams color, *Oxford Ivy 2245*.

### Security Structures:

This category of structures includes fencing and gates, public address systems, street lighting and searchlights. The Nike Radar and Launch area are both surrounded by fences with barbed wire on the top. In the case of the Launch area, additional internal security fences were added. Swiveling aluminum searchlights were mounted to brackets attached to telephone poles in the corners of the Launch area. In addition, some areas have tall steel stanchions topped with lights and aluminum reflectors. Mounted in the center of the launch area is a pole holding aluminum PA speaker bells. The fencing and steel light poles all show evidence of having been painted silver. This color appears to match Benjamin Moore, *Aluminum 164 78*.

## GUIDELINES AND TREATMENTS

### GUIDELINES:

1. Structures will be painted to represent the time period of their highest significance, the height of the Cold War Era, 1959-65.
2. Because of many similarities between Nike site SF-88L at Golden Gate and NY56 at Fort Hancock, the Fort Hancock structures will be painted the same as those at Golden Gate.

### TREATMENTS:

- 1. Buildings:** Walls will be painted Sherwin-Williams colors *Peppergrass SW2380*, with a dark green trim of *Neptune Blue SW2399*.
- 2. Radar Platforms:**
  - \* Painted concrete and iron girders: Benjamin Moore *Brilliant White 01*.
  - \* Upright leg bases and safety railings: Benjamin Moore *Imperial Yellow 31*.
  - \* Electric utility components: Benjamin Moore *Euro Blue 37*.
- 3. Batteries:**
  - \* Silo borders, elevator lift platforms, entry hatches, vents, emergency fire hookups and adjacent launch areas and borders: Benjamin Moore *Imperial Yellow 314*.
  - \* Electrical utility components: Benjamin Moore *Euro Blue 37*.
  - \* Water pipes, spigots and hose holder (fire suppression apparatus): Benjamin Moore *Carnival Red 23*.
  - \* Launch bases: Benjamin Moore, *Aluminum 164 78*
  - \* Metal attachments on launch bases: Sherwin-Williams color, *Oxford Ivy 2245*.
- 4. Security Structures:**
  - \* Aluminum lights and PA bells are in excellent condition. These features should be cleaned and coated with a clear satin acrylic.
  - \* Fencing and steel light poles should be painted: Benjamin Moore, *Aluminum 164 78*.

## LIST OF PAINT COLORS FOR NIKE FACILITY STRUCTURES (Appendix V in Paint Plan)

### Nike Missile Facilities

Sherwin-Williams *Neptune Blue* (SW 2399), dark blue-green (satin exterior latex)  
Sherwin-Williams *Peppergrass* (SW 2380), medium green (satin exterior latex)  
Benjamin-Moore *Brilliant White 01*, bright white, (satin exterior latex)  
Benjamin-Moore *Imperial Yellow 314*, rich deep yellow (satin exterior latex)  
Benjamin-Moore *Euro Blue 37*, medium blue almost royal blue (satin exterior latex)  
Benjamin-Moore *Carnival Red 23*, deep red (metal paint)  
Benjamin-Moore *Aluminum 164 78*, silver (metal paint)  
Benjamin-Moore *Oxford Ivy 2245*, a dark olive drab (metal paint)

### **BIBLIOGRAPHY**

----- Sherwin-Williams. *Exterior Coloranswers*. November 1995. *Book of Sherwin-Williams color swatches from which existing paint tones on Sandy Hook structures were matched to determine a modern equivalent.*

Bender, Donald E. *Opportunities for Preservation & Historical Interpretation at Former Nike Missile Battery NY-56 Fort Hancock, New Jersey*. September 2000. *This private report is an historic overview with recommendations for preservation and interpretation.*

Martini, John A. and Haller, Stephen A. *What We Have We Shall Defend: An Interim History and Preservation Plan for Nike Site SF-88L, Fort Barry, California*. National Park Service, Golden Gate National Recreation Area, San Francisco, California, 1998

Telephone Conversation between Sandy Hook Park Ranger (Cultural Resources) Michael Thomas and Curator of Military History John Martini of Golden Gate NRA. September 2000. *Conversations regarding paint and treatment of Nike facilities at Golden Gate NRA.*

A Walk through the Fort Hancock Nike Radar and Launch sites with Don Bender, November 17, 2000. *Conversations on paint, operations and possible future strategies for dealing with Fort Hancock's Cold War resources.*

## **APPENDIX X: REPORT ON MISCELLANEOUS FACILITY**

### **INTRODUCTION**

The purpose of this report is to establish exterior paint color treatments for four miscellaneous facilities of Sandy Hook. Unlike other sections of this plan that had developed consistent paint treatments for groups of similar buildings, each structure in the miscellaneous category is treated individually because of their distinct nature. None of the four structures in this category are historically or thematically related. This report is being completed at this time (February 2001) to complete the Sandy Hook Paint Plan.

### **RESEARCH AND INVESTIGATIONS**

#### **BACKGROUND AND APPROACH**

Color data on Sandy Hook's four miscellaneous structures was compiled by field examinations; scraping down through layers of paint and visually matching them as closely as possible to color charts provided by Sherwin Williams and Benjamin Moore Companies. This category contains two memorials, and two buildings.

#### **The Halyburton Memorial (SH-098):**

This site is a memorial built in 1937 by workmen of the Civilian Conservation Corps and dedicated in 1939. It is dedicated to British sailors and Marines who lost their lives on Sandy Hook in 1783. It consists of decorative stone walls, stairs and a walkway, a stone memorial monument affixed with a bronze plaque, two iron pipe flagpole holders with caps on each side of the monument and an adjacent aluminum flagpole/mast with cross piece and an iron base. The only elements of this monument site that require cyclic painting is the base of the flagpole and the flagpole holders. These iron components are currently painted a gloss black that is identical to Sherwin Williams *Tricorn Black* (W-A100-7152).

#### **The Guardian Park Memorial (SH-N, SH-O, SH-P):**

The Guardian Park Memorial was constructed and dedicated in 1974 by the U.S. Army. It is a memorial to six soldiers and four civilians of the Ordnance Corps who were killed by the explosion of a Nike Missile in nearby Belford, New Jersey on May 22, 1955. It now consists of a series of concrete walks (SH-P), an engraved granite monument (SH-O), an upright concrete base on which a Nike Ajax missile was mounted and a flush concrete base, currently on which is mounted a Nike Hercules missile (SH-N) in an upright

position. The Nike Ajax was damaged in a storm and has been removed from the site. Upon completion of repairs, it will be returned and mounted at the memorial in its original position.

The only parts of the memorial that are painted is the concrete square (sidewalk level) at the base of the Nike Hercules missile, the upright base for the Nike Ajax and the missiles themselves. They are all a very stark white similar to *Benjamin Moore 01*. The memorial originally had some full color plaques of Anti-aircraft Missile unit distinctive insignia that were mounted on the raised concrete base of the Nike Ajax missile. These have been removed and are in the Sandy Hook museum collection.

The two Nike missiles are constructed of an aluminum magnesium alloy. They were originally a stark white matching Benjamin Moore *Brilliant White 01*. Because of the salt environment in which they are displayed, they will require special attention in the form of a coating of micro-crystalline wax over the newly painted surfaces. An alternative paint scheme was researched to use marine epoxy, however, surface preparation would have caused loss of fabric due to the use of etching compounds to make the primer coats of marine epoxy stick to the missiles.

The Nike missiles of Guardian Park are both catalogued as part of the Fort Hancock Museum collection. The Ajax is catalogue #12876 and the Hercules is catalogue #12921.

#### **Area Manager's House (SH-600):**

This structure is designated the "area manager's house" in the List of Classified Structures. It is a two-story clapboard building with an attached porch and garage and a brown asphalt shingle roof. The exact date of construction is unknown but it probably dates circa 1930s or 1940s. The List of Classified Structures (March 1999) identifies it as "Built by family that ran a...beach concession at entrance to Hook." It is further categorized as "NR Status: Undetermined", "Significance: Not Evaluated" and "NHL [status]: No."

Scrapings indicate that the original structure, clapboard, trim and corner boards were painted a color that matches *Restful White*. Scrapings on the trim further indicate a hierarchy of colors (from earliest to latest) as being a creamy white, stark white, dark gray, a bright light colored green and finally, numerous coats of creamy and stark white with a final brown coat matching *Tudor Brown*. Currently the rest of the clapboard on the structure is painted a stark white matching *Benjamin Moore 01* to about ten feet from the top of the foundation of the structure and a creamy white matching *Restful White* from there up to the cornices which are *Tudor Brown*. The cinderblock foundation has been covered with concrete and is currently painted *Tudor Brown*, the only color it was ever painted. There appears to only be one or two coats of paint on the concrete.

### **Marine Fisheries Laboratory:**

This building is new construction completed in 1987. It is a yellow brick structure and is designed to be compatible with the existing architecture of Fort Hancock but not to duplicate it.

A letter from the State of New Jersey, Division of Property management and Construction (signed by George Grant, dated August 27, 1999) states: “When we originally painted the lab and building #74 (in 1993 and 1994, respectively) our architects worked closely with NPS historians to specify the accurate exterior colors.” It was specified at that time that all metal elements and all trim on the new marine lab would be painted a dark blue green color like that historically used at Fort Hancock. This color matches *Neptune Blue*.

It is that same color today.

## **GUIDELINES AND TREATMENTS**

### GUIDELINES:

1. Miscellaneous structures except the Area Manager’s House will be painted their current paint schemes.
2. The Area Manager’s House will be painted in accordance with the building’s earliest single-color paint scheme using a paint shade used elsewhere in Sandy Hook to allow for ease of cyclic maintenance.

### TREATMENTS:

#### **Halyburton Memorial:**

- \* Iron fittings at the memorial site flagpole will be painted *Tricorn Black* (SW-A100-7152).

#### **Guardian Park Memorial:**

- \* Concrete missile bases will be painted Benjamin Moore *Brilliant White 01*.
- \* Nike missiles will be painted Benjamin Moore *Brilliant White 01*. They will then be coated with a museum grade micro-crystalline wax.

#### **Marine Fisheries Laboratory:**

- \* All painted surfaces will be painted *Neptune Blue* (SW2399).

**Area Manager's House:**

\* The entire structure, both clapboard and trim, will be painted *Restful White* (SW2449).

**LIST OF PAINT COLORS FOR MISCELLANEOUS STRUCTURES (Appendix V in Paint Plan)**

Sherwin-Williams *Neptune Blue* (SW 2399), dark blue-green (satin exterior latex)

Benjamin-Moore *Brilliant White 01*, bright white, (satin exterior latex)

Sherwin-Williams *Tricorn Black* (SW-A100-7152), black metal paint, (gloss exterior latex).

Sherwin-Williams *Restful White* (SW2449), creamy white, (satin exterior latex).

**BIBLIOGRAPHY**

Barlow, William, Glassman, Jack and Guthrie, Patrick. *List of Classified Structures, Volume 4. Gateway NRA Sandy Hook Unit.* National Park Service, New England System Support Office. March 1996.

Lists all Sandy Hook structures, defines their characteristics and level of significance.

-----*Sherwin-Williams. Exterior Coloranswers.* November 1995.

*Book of all Sherwin-Williams color swatches from which existing paint tones on Sandy Hook structures were matched to determine a modern equivalent.*

Letter to Charles Baerlin, Superintendent of the Sandy Hook Unit, from Facility Manager George Grant of the State of New Jersey Division of property management and Construction, dated August 27, 1999.

*This letter documents the decisions to paint the new marine Lab building and SH-074 a particular paint scheme.*

Telephone Conversation between Benjamin Moore representative and Park Ranger (Cultural Resources) Michael Thomas. February 2001.  
*Conversations regarding painting and treatment of Nike missiles.*

Telephone Conversation between Interlux marine paint representative and Park Ranger (Cultural Resources) Michael Thomas. February 2001.

*Conversations regarding painting and treatment of Nike missiles.*

## APPENDIX XI: FEDERAL STANDARD 595B COLORS

The following chart is a listing of the various commercial paint colors identified throughout this report and their conversion into Federal Paint Standard colors. (Federal Standard 595B Colors, Fan Deck, 7690-01-162-2210, July 1994).

### Fort Hancock Permanent Structures

Sherwin-Williams <i>Neptune Blue</i> (SW 2399)	FSC#34058
Sherwin-Williams <i>Cottage Cream</i> (SW 2347)	FSC#37855
Sherwin-Williams <i>Restful White</i> (SW 2449)	FSC#37886
Sherwin-Williams <i>Tricorn Black</i> (SW-A100-7152)	FSC#37031
Top-Coat <i>Gray Bridge</i> (SW code: 2132)	FSC#36134
Sherwin Williams <i>Gray Bridge</i> (SW 2132)	FSC#36134
Top-Coat <i>Patina</i>	FSC#34300
Sherwin-Williams <i>Haze Gray</i> (Armor Seal, Tread-plex)	FSC#26187

### Sandy Hook Proving Ground Structures

Sherwin-Williams <i>Neptune Blue</i> (SW 2399)	FSC#34058
Sherwin-Williams <i>Cottage Cream</i> (SW 2347)	FSC#37855
Sherwin-Williams, <i>Haze Gray</i> (Armor Seal, Treat-plex)	FSC#26187
Sherwin-Williams <i>Tricorn Black</i> (SW-A100-7152)	FSC#37031
Top-Coat <i>Gray Bridge</i> (SW code: 2132)	FSC#36134
Sherwin Williams <i>Gray Bridge</i> (SW 2132)	FSC#36134
Top-Coat <i>Patina</i>	FSC#34300

### Maritime Structures

Benjamin Moore <i>Brilliant White 01</i>	FSC#27925
Sherwin-Williams <i>Haze Gray</i> (Armor Seal, Tread-plex)	FSC#26187
Sherwin-Williams <i>Tricorn Black</i> (SW-A100-7152)	FSC#37031
Sherwin Williams <i>Gray Bridge</i> (SW 2132)	FSC#36134
Top-Coat <i>Gray Bridge</i> , (SW code: 2132)	FSC#36134
Top-Coat <i>Patina</i>	FSC#34300

World War II Temporary Structures

Sherwin-Williams <i>Restful White</i> (SW 2449)	FSC#37886
Sherwin-Williams <i>Haze Gray</i> (Armor Seal, Treat-plex)	FSC#26187
Sherwin-Williams <i>Tricorn Black</i> (SW-A100-7152)	FSC#37031
Sherwin Williams <i>Gray Bridge</i> (SW 2132)	FSC#36134
Top-Coat <i>Gray Bridge</i>	FSC#36134

Nike Missile Facilities

Sherwin-Williams <i>Neptune Blue</i> (SW 2399)	FSC#34058
Sherwin-Williams <i>Peppergrass</i> (SW 2380)	FSC#24491
Benjamin-Moore <i>Brilliant White 01</i>	FSC#27925
Benjamin-Moore <i>Imperial Yellow</i> 314	FSC#13655
Benjamin-Moore <i>Euro Blue</i> 37	FSC#15123
Benjamin-Moore <i>Carnival Red</i> 23	FSC#11086
Benjamin-Moore <i>Aluminum</i> 164 78	FSC#37200
Benjamin-Moore <i>Oxford Ivy</i> 2245	FSC#34096

Gun Batteries and Attached Structures

Sherwin-Williams <i>Tricorn Black</i> (SW-A100-7152)	FSC#37031
Sherwin-Williams <i>Flat-Tricorn Black</i> (SW-7152)	FSC#37031
Benjamin Moore <i>Flat-Brilliant White 01</i>	FSC#27925
Sherwin-Williams <i>Restful White</i> (SW 2449)	FSC#37886
Top-Coat <i>Gray Bridge</i>	FSC#36134
Sherwin-Williams <i>Neptune Blue</i> (SW 2399)	FSC#34058

Miscellaneous Facilities

Sherwin-Williams <i>Neptune Blue</i> (SW 2399)	FSC#34058
Sherwin-Williams <i>Flat-Tricorn Black</i> (SW-7152)	FSC#37031
Benjamin-Moore <i>Flat-Brilliant White 01</i>	FSC#27925
Sherwin Williams <i>Gray Bridge</i> (SW 2132)	FSC#36134
Sherwin-Williams <i>Haze Gray</i> (Armor Seal, Treat-plex)	FSC#26187
Sherwin-Williams <i>Restful White</i> (SW 2449)	FSC#37886

## ENDNOTES

Prepared by the National Park Service  
Department of the Interior  
By Michael Thomas  
Park Ranger (Cultural Resources)  
Sandy Hook, Gateway NRA

As the nation's principle conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interest of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for peoples who live in island territories under U.S. administration.

The National Park Service cares for special places saved by the American people so that all may experience our heritage.